# FENGGUANG

# Innovative Polymer Additive & Catalyst Solutions

*Chemistry creates life.*

FENGGUANG
风光股份

FENGGUANG

## COMPANY PROFILE

Founded in 2003, Yingkou Fengguang Advanced Material Co., Ltd. (FENGGUANG) is recognized as a high-tech enterprise, specialized in the research, development, production, and sales of polymer additives, catalysts, and co-catalysts.

## WHY CHOOSE FENGGUANG?

**Over 20 Years of Expertise**
A trusted partner in developing advanced additive and catalyst solutions for global markets.

**Leading Supplier to the Polyolefins Industry**
Proven excellence in delivering reliable, industry-specific products.

**Certified National Green Factory**
Sustainability at the core of our innovative solutions.

**State-of-the-art Manufacturing**
One of the top three manufacturers of antioxidants worldwide.

**Global Presence**
Serving clients across Asia, Europe, the Middle East, and the Americas.

**Research Partnerships**
Advanced collaborations with renowned institutions like the Chinese Academy of Sciences and Tongji University.

Founded by Mr. Wang Wenzhong in 2003 in Yingkou, China, FENGGUANG has grown to become a global leader in polymer additives, catalysts, and co-catalysts.

Under the leadership of chairman and CEO Mr. Wang Lei, the company continues to innovate while upholding its core values of responsibility, efficiency, innovation, development, and harmony.

## Key Highlights

- Among top 3 global antioxidant producers.
- Over 30 registered patents.
- Contributions to 9 national industrial standards.
- Global expansion with subsidiaries in Switzerland and the UAE.
- Certified as a "National Green Factory" and recognized for sustainable practices.
- CNAS-accredited laboratories ensuring precision and reliability.

## Our Vision

Become a global leading provider of polymer additive solutions and catalysts, driving advancements that empower industries and enrich lives.

## Our Mission

Create beautiful lives through chemistry by enhancing life quality and spearheading sustainable, low-carbon innovations.

## Our Values in Action

At the heart of everything we do are our core values:

- Responsibility
- Efficiency
- Innovation
- Development
- Harmony

## SERVING THE GLOBAL POLYMER INDUSTRY

We have established strong partnerships with many of China's top 500 enterprises, while expanding our presence across key regions, including Asia, Europe, the Middle East, and the Americas.

### Key Locations

- **Headquarters:** Yingkou, China.
- **Two Production Sites in China:**
  1. Yingkou Plant: Focused on antioxidants, fully backward integrated (30KT capacity).
  2. New Yulin Plant: Dedicated to antioxidants, fully backward integrated (50KT capacity), as well as catalysts and co-catalysts.
- **Beijing R&D Center:** Driving innovation and sustainable development.
- **European Subsidiary:** Basel, Switzerland.
- **Middle East Subsidiary:** Dubai, UAE.

## EMPOWERING INDUSTRIES WORLDWIDE

FENGGUANG provides high-quality, tailored additive and catalyst solutions that enable advanced uses of polymers across a wide range of industries. From improving product performance to enhancing sustainability, our materials are designed to meet the unique challenges of each application.

1. **Automotive:** Supporting innovation in automotive materials for lightweight, durable, and efficient components.
2. **Packaging:** Boosting safety and quality in packaging applications, offering solutions for long-lasting products.
3. **Medical & Healthcare:** Supplying antioxidants and additives for reliable and safe medical polymers.
4. **Building & Construction:** Enhancing durability and strength in construction materials for modern infrastructure.
5. Durable & Consumer Goods, Agriculture, Textiles & Fibers, Adhesives, Wire & Cable, Electrical & Electronics, and more.

## EMBRACING OUR LOGO

Our logo speaks to this purpose, embodying the harmonious relationship between technology and nature. The blue represents the sky and advancements in technology, while the green symbolizes nature and environmental protection. The shape, resembling a dandelion, reflects resilience and vitality.

Like a dandelion dancing in the wind and spreading its seeds to grow wherever life thrives, FENGGUANG is determined to spread its impact across the world. The imagery of the sun brightening the earth aligns with our endeavor to lead globally, fostering life and progress in everything we do.

## LEADING THE WAY IN SUSTAINABLE PROGRESS

Sustainability is at the core of our business philosophy. Through cutting-edge technologies and responsible practices, we are committed to:

- **Reducing Emissions:** Implementing low-carbon solutions across all production processes.
- **Advancing the Circular Economy:** Promoting recycling and resource efficiency.
- **Responsible Sourcing:** Partnering with suppliers who share our values of environmental stewardship.

### Certifications

- "National Green Factory" Certification.
- EcoVadis and TfS assessments for transparency and sustainability.

# ADDITIVES

# Alkylphenols

ADDITIVES

# 2,4 Di-Tert-Butylphenol

## DETAILS

**Chemical Formula:** $C_{14}H_{22}O$
**Cas No.:** 96-76-4
**Molecular Weight:** 206.31

## APPLICATIONS

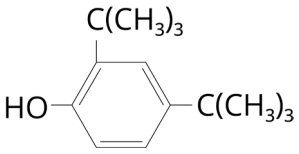
It is a primary raw material for phosphite-based antioxidants, such as 168, 626, 618, and PEPQ. It is also a key intermediate for producing light stabilizers and high-efficiency emulsifiers.

## STORAGE

Handle according to standard chemical product requirements. Ensure fire prevention, water isolation, and protection from package rupture.

## PACKAGING

The product is packaged in galvanized steel drums lined with polytetrafluoroethylene (PTFE). Net weight: 186 kg per drum.




## SPECIFICATIONS

**Appearance:** White to light yellow crystal or colorless to light yellow liquid
**Specific Gravity (25°C):** 0.92
**Melting Range (°C):** 54 ~ 58
**Boiling Point at Atmospheric Pressure (°C):** 263
**Moisture Content %:** ≤ 0.05
**Color Value (Hazen):** ≤ 50
**Purity %:** ≥ 99.50
**2,6-Di-Tert-Butylphenol Content %:** ≤ 0.1

## TOXICITY AND PROTECTION

This product has low toxicity and causes minimal irritation in its solid form. However, in its liquid state, it may cause increased irritation to the skin and mucous membranes. Avoid ingestion and direct skin contact. When handling the product, always wear gloves and safety goggles for protection.

## PROPERTIES

It is not easily ignited, but flammable, and has a mild odor at room temperature. As the temperature increases, it becomes more volatile and gives off a distinct alkylphenol scent. It readily dissolves in organic solvents such as alcohols, esters, alkanes, and aromatic hydrocarbons like ethanol, butyl acetate, gasoline, and toluene. Its solubility in water is practically negligible. Like other phenolic compounds, it tends to darken over time when exposed to light, heat, or air.

# 2,6 Di-Tert-Butylphenol

## DETAILS

**Chemical Formula:** $C_{14}H_{22}O$
**Cas No.:** 128-39-2
**Molecular Weight:** 206.31

## APPLICATIONS

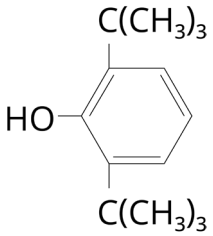
It is a primary raw material for hindered phenolic antioxidants, such as 1010, 1076, 3114, 702, and 330. It is also an important raw material for pharmaceutical intermediates and can be directly used as an additive in fuel and lubricant products.

## STORAGE

Handle according to standard chemical product requirements. Ensure fire prevention, water isolation, and protection from package rupture.

## PACKAGING

The product is packaged in galvanized steel drums lined with polytetrafluoroethylene (PTFE). Net weight: 186 kg per drum.




## SPECIFICATIONS

**Appearance:** White to light yellow crystal or colorless to light yellow liquid
**Specific Gravity (25°C):** 0.914
**Melting Range (°C):** 36 ~ 39
**Boiling Point at Atmospheric Pressure (°C):** 253
**Moisture Content %:** ≤ 0.05
**Color Value (Hazen):** ≤ 50
**Purity %:** ≥ 99.50
**2,6-Di-Tert-Butylphenol Content %:** ≤ 0.2

## TOXICITY AND PROTECTION

This product has low toxicity and causes minimal irritation in its solid form. However, in its liquid state, it may cause increased irritation to the skin and mucous membranes. Avoid ingestion and direct skin contact. When handling the product, always wear gloves and safety goggles for protection.

## PROPERTIES

It is not easily ignited, but flammable, and has a mild odor at room temperature. As the temperature increases, it becomes more volatile and gives off a distinct alkylphenol scent. It readily dissolves in organic solvents such as alcohols, esters, alkanes, and aromatic hydrocarbons like ethanol, butyl acetate, gasoline, and toluene. Its solubility in water is practically negligible. Like other phenolic compounds, it tends to darken over time when exposed to light, heat, or air.

# Neat Antioxidants / B-Blends

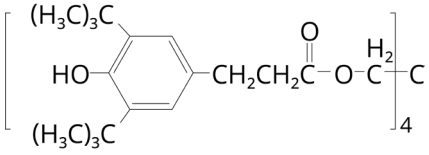
ADDITIVES

# YFK-1010

*Hindered Phenolic AO*

## DETAILS

**Chemical Name:** Pentaerythritol Tetrakys 3-(3,5-Ditert-Butyl-4-Hydroxyphenyl) Propionate
**Chemical Formula:** $C_{73}H_{108}O_{12}$
**Cas No.:** 6683-19-8
**Molecular Weight:** 1178



## SPECIFICATIONS

**Appearance:** White powder or particle
**Melting Range (°C):** 110 ~ 125
**Volatile Loss %:** ≤ 0.50
**Ash Content %:** ≤ 0.10
**Transmittance %:** 425nm ≥ 96 | 500nm ≥ 98
**Solubility:** Clear
**Main Content %:** ≥ 94
**Active Ingredient Content:** ≥ 98
**Tin Content%:** ≤ $2\times10^{-4}$

## STORAGE

This product is stable under normal conditions and does not have any special storage requirements. However, it should be protected from moisture and heat.

## RECOMMENDED DOSAGE

The typical dosage range is 0.04% to 0.30%.

## PACKAGING

The product is packaged in PE bags. The net weight per bag is 20kg or 25kg. The pallet is wrapped, with a net weight of 500 kg or 625 kg.

## PROPERTIES

It is soluble in organic solvents like benzene, acetone, and chloroform, slightly soluble in hexanol, and insoluble in water.

## APPLICATIONS

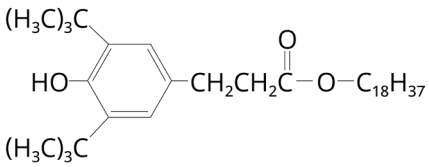
Applications include polyolefins such as polyethylene, polypropylene, and polybutene, as well as olefin copolymers like ethylene-vinyl acetate copolymer. It is also recommended for use in polyacetal resins, polyamides, polyesters, polyvinyl chloride (PVC), polystyrene-based homopolymers and copolymers, and ABS. Additionally, it can be used in elastomers like butyl rubber, SBS, SEBS, EPM, EPDM, as well as other synthetic rubbers, adhesives (both natural and synthetic resins), and other organic materials.

# YFK-1076

*Hindered Phenolic AO*

## DETAILS

**Chemical Name:**
3,5-Bis(1,1-Dimethylethyl)-4-hydroxybenzenepropanoic acid octadecyl ester
**Chemical Formula:** $C_{35}H_{62}O_3$
**Cas No.:** 2082-79-3
**Molecular Weight:** 531



## SPECIFICATIONS

**Appearance:** White powder or particle
**Melting Range (°C):** 50 ~ 55
**Volatile Loss %:** ≤ 0.20
**Ash Content %:** ≤ 0.05
**Transmittance %:** 425nm ≥ 98 | 500nm ≥ 99
**Solubility:** Clear
**Main Content %:** ≥ 98.5
**Active Ingredient Content:** ≥ 98
**Tin Content%:** ≤ $2\times10^{-4}$

## STORAGE

This product is stable under normal conditions and does not have any special storage requirements. However, it should be protected from moisture and heat.

## RECOMMENDED DOSAGE

The typical dosage range is 0.02% to 0.20%.

## PACKAGING

The product is packaged in cardboard boxes lined with plastic bags. The net weight per box is 20 kg. The pallet is wrapped, with a net weight of 500 kg.

## PROPERTIES

Odorless and tasteless, it dissolves readily in solvents such as benzene, acetone, and esters, and is slightly soluble in ethanol. The product is free from impurities, with good heat and water resistance, excellent extractability, and compatibility.

## APPLICATIONS

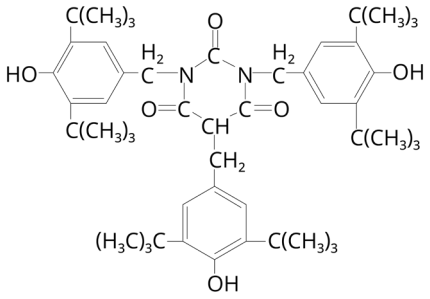
Applications include polyolefins such as polyethylene, polybutene, polypropylene, and other polymers, including engineering plastics, polystyrene-based homopolymers and copolymers, polyurethanes, elastomers, adhesives, and other organic materials.

# YFK-3114

*Hindered Phenolic AO*

## DETAILS

**Chemical Name:** 1,3,5-tris-(3,5-di-tert-butyl-4-hydroxybenzyl)-s-triazine-2,4,6(1H,3H,5H)-trione
**Chemical Formula:** $C_{48}H_{69}O_6N_3$
**Cas No.:** 27676-62-6
**Molecular Weight:** 784.1



## SPECIFICATIONS

**Appearance:** White powder
**Melting Range (°C):** 218.0 ~ 225.5
**Volatile Loss %:** ≤ 0.30
**Ash Content %:** ≤ 0.05
**Transmittance %:** 425nm ≥ 95.0
500nm ≥ 97.0
**Solubility:** Clear
**Content (%):** ≥ 98.0

## APPLICATIONS

It is a high-quality antioxidant synthesized from various natural agents. It can be applied in PE, PP, ABS resin, polyurethane, PBT resin, PVC, polyester, polyformaldehyde, polyamide, diverse types of synthetic rubber, and other polymer materials.

## STORAGE

This product is stable under normal conditions and does not have any special storage requirements. However, it should be protected from moisture and heat.

## RECOMMENDED DOSAGE

The typical dosage range is 0.05% to 0.20%.

## PROPERTIES

It is a multielement hindered phenol antioxidant supplied as a white crystalline powder. It exhibits solubility in benzene, chloroform, and various other organic solvents, limited solubility in ethanol, and is insoluble in water. The material demonstrates low volatility, excellent compatibility with a wide range of polymers, and strong resistance to hot water and detergent extraction. It provides superior thermal stability and outstanding resistance to thermal and oxidative aging. The antioxidant maintains color stability, generates no odor or taste, and does not contribute to contamination. YFK-3114 is classified as non-toxic and highly efficient.

## PERFORMANCE

It is a wide-ranging plastic additive known for its high efficiency, low toxicity, lack of pollution, and invariable color. This additive can be incorporated into plastics, rubber, and other polymeric materials to protect them against damage caused by thermal oxidation. As the most outstanding representative of hindered phenol antioxidants, it has been widely applied in the polyolefin and plastic processing industry in China.

## PACKAGING

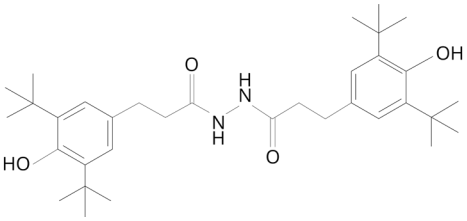
The product is packaged in cardboard boxes lined with plastic bags. The net weight per box is 25 kg.

# YFK-1024

*Hindered Phenolic AO*

## DETAILS

**Chemical Name:**
N,N-Bis[β -(3,5-di-tert-butyl-4-hydroxyphenyl)propionyl]hydrazine
**Chemical Formula:** $C_{34}H_{52}N_2O_4$
**Cas No.:** 32687-78-8
**Molecular Weight:** 552.80



## SPECIFICATIONS

**Appearance:** White powder or particle
**Volatile Loss %:** ≤ 0.5
**Melting Range (°C):** 224.0 ~ 232.0
**Transmittance %:** 425nm ≥ 97.0
500nm ≥ 98.0
**Ash Content %:** ≤ 0.1
**Content %:** ≥ 98.0

## STORAGE

This product is stable under normal conditions and does not have any special storage requirements. However, it should be protected from moisture and heat.

## RECOMMENDED DOSAGE

The typical dosage range is 6% to 8%.

## PACKAGING

The product is packaged in 25 kg paper bags or cartons.

## PROPERTIES

It is a white to light-yellow crystalline powder. It functions as a metal deactivator, effectively inhibiting copper-catalyzed degradation during the processing of plastic materials.

## APPLICATIONS

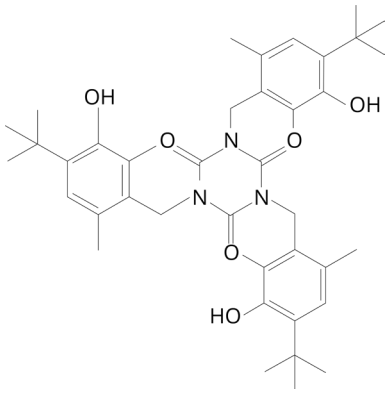
It is a hindered phenol antioxidant with distinct performance characteristics. It is primarily used in the production of cable materials and functions as a long-term stabilizer for polymer applications.

# YFK-1790

*Hindered Phenolic AO*

## DETAILS

**Chemical Name:** 1,3,5-Tris(4-tert-butyl-3-hydroxy-2,6-dimethylbenzyl)-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione
**Chemical Formula:** $C_{42}H_{57}N_3O_6$
**Cas No.:** 40601-76-1
**Molecular Weight:** 699.919




## SPECIFICATIONS

**Appearance:** White powder
**Content %:** ≥ 98.0
**Volatile Loss %:** ≤ 0.50
**Melting Range (°C):** 159.0~163.0

## STORAGE

This product is stable under normal conditions and does not have any special storage requirements. However, it should be protected from moisture and heat.

## RECOMMENDED DOSAGE

The typical dosage range is 5% to 8%.

## PACKAGING

The product is packaged in 25 kg paper bags or cartons.

## PROPERTIES

It is a white powder and classified as an asymmetric phenolic antioxidant. It provides superior protection of color stability in plastic products during processing and exhibits strong resistance to gas fumigation and fading. Compared with conventional antioxidants, it demonstrates significantly enhanced thermal stability under high-temperature conditions.

## APPLICATIONS

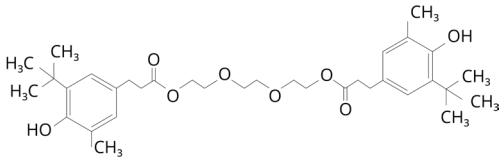
It provides superior color protection during long-term storage compared with conventional antioxidants, including Antioxidant 3114.

# YFK-245

*Hindered Phenolic AO*

## DETAILS

**Chemical Name:** Triethylene glycol bis(3-tert-butyl-4-hydroxy-5-methylphenyl)propionate
**Chemical Formula:** $C_{34}H_{50}O_8$
**Cas No.:** 36443-68-2
**Molecular Weight:** 586.80




## SPECIFICATIONS

**Appearance:** White powder or particle
**Melting Range (°C):** 76.0~79.0
**Transmittance %:** 425nm ≥ 95
500nm ≥ 97
**Solubility:** Clear
**Volatile Loss %:** ≤ 0.5
**Main Content %:** ≥ 96
**Ash Content %:** ≤ 0.1

## STORAGE

This product is stable under normal conditions and does not have any special storage requirements. However, it should be protected from moisture and heat.

## RECOMMENDED DOSAGE

The typical dosage range is 1% to 2%.

## PACKAGING

The product is packaged in 25 kg paper bags or cartons.

## PROPERTIES

It is a white crystalline powder. It can be used in combination with auxiliary antioxidants, light stabilizers, and other functional stabilizers.

## APPLICATIONS

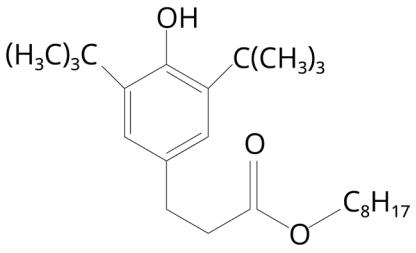
It is a unique hindered phenol antioxidant primarily applied in polystyrene and polyolefins. It is particularly suitable for HIPS, ABS, MBS, SB and SBR latex, as well as monomers and copolymers of POM. Additionally, it can be used as a stabilizer in polyurethane, polyamide, thermoplastic polyester, PVC, and other polymer systems.

# YFK-1135

*Hindered Phenolic AO*

## DETAILS

**Chemical Name:** Benzenepropanoic acid 3,5-bis(1,1-dimethyl-ethyl)-4-hydroxy-C7-C9-branched alkyl esters
**Chemical Formula:** $C_{25}H_{42}O_3$
**Cas No.:** 125643-61-0
**Molecular Weight:** 390




## SPECIFICATIONS

**Appearance:** Colorless or light-yellow transparent liquid
**Solubility:** Clear
**Color (Pt–Co scale):** ≤ 100
**Water Content %:** ≤ 0.1
**Acidity Value (mg KOH/g):** ≤ 0.1
**Purity %:** ≥ 98.0

## STORAGE

This product is chemically stable and should be stored in a cool, dry, and moisture-proof environment.

## RECOMMENDED DOSAGE

The typical dosage range is 0.1% to 0.5.

## PACKAGING

The product is packaged in 180kg steel barrel.

## PROPERTIES

It is a colorless to light-yellow transparent liquid. It is essentially insoluble in water, soluble in most organic solvents, and classified as non-toxic.

## PERFORMANCE

It is a flowable liquid antioxidant characterized by low volatility and good compatibility. It is particularly suitable for air-cooled polyurethane processing and is effective in preventing fogging in automotive components as well as discoloration in textiles such as furniture fabrics, blankets, and hats. Due to its liquid fluidity, YFK-1135 is well-suited for processing polymers prepared in liquid, emulsion, suspension, solution, or molten states. It can be incorporated either before or after polymerization.

## APPLICATIONS

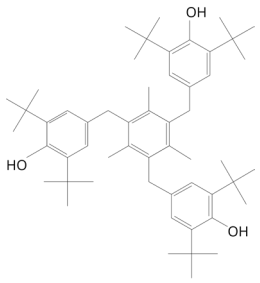
It is a highly effective antioxidant applicable to a wide range of polymers. It prevents superoxide-induced foaming in polyhydroxy compounds, thereby enhancing the storage and transportation stability of polyurethane foam boards. In addition, it regulates the foaming rate during polyurethane processing to prevent excessive or premature foaming.

# YFK-330

*Hindered Phenolic AO*

## DETAILS

**Chemical Name:** 1,3,5-Trimethyl-2,4,6-tris(3,5-di-tert-butyl-4-hydroxybenzyl)benzene
**Molecular Weight:** 775




## SPECIFICATIONS

**Appearance:** White crystalline powder
**Volatile Loss %:** ≤ 0.3
**Solubility:** Clear
**Melting Point (°C):** 241.0 ~ 245.0
**Ash Content %:** ≤ 0.1
**Transmittance %:** 425nm ≥ 96.0 | 500nm ≥ 98.0
**Main Content %:** ≥ 98.0

## APPLICATIONS

It is suitable for use in polyolefins such as polyethylene and polybutene pipes, molded products, wires and cables, and dielectric films. It is also compatible with other polymers, including homopolymers and copolymers of linear polyesters, polyamides, and styrenics used in engineering plastics. Additionally, it can be applied in PVC, polyurethane, elastomers, adhesives, and other organic materials.

## STORAGE

This product is stable under normal conditions and does not have any special storage requirements. However, it should be protected from moisture and heat.

## PACKAGING

The product is packaged in 25 kg paper bags or cartons.

## PROPERTIES

It is a highly effective hindered phenolic antioxidant for phenol processing and long-term primary antioxidant, which is widely applicated in various polymers, synthetic fibers, elastomers, adhesives, waxes, oils and greases. It can effectively prevent thermo-oxidative degradation of these substances.

## PERFORMANCE

It is a tasteless additive with good compatibility with most organic compounds, excellent extraction resistance, and outstanding dielectric properties. It can be used in combination with other additives, such as sulfide and phosphite auxiliary antioxidants, light stabilizers, and other functional stabilizers. The combination of YFK-330 with YFK-168 shows particularly strong performance. It is especially suitable for polyolefin applications requiring water extraction resistance and color stability, and it effectively enhances the water extraction resistance of polypropylene flat fibers.

## RECOMMENDED DOSAGE

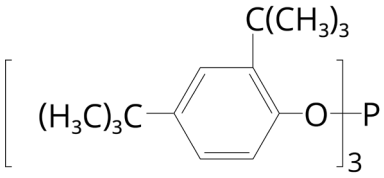
For polyolefins, the recommended dosage ranges from 0.05% to 0.3%, depending on the polymer type, processing conditions, and long-term thermal stability requirements. The optimal concentration should be determined based on specific product performance needs. For hot melt adhesives, the typical dosage is 0.2% to 1.0%, and for synthetic tackifying resins, 0.1% to 0.5%. For detailed technical specifications, please contact us.

# YFK-168

*Phosphite AO*

## DETAILS

**Chemical Name:** Tris(2,4-Di-Tert-Butylphenyloxy)phosphine
**Chemical Formula:** $C_{42}H_{63}O_3P$
**Cas No.:** 31570-04-4
**Molecular Weight:** 646



## SPECIFICATIONS

**Appearance:** White crystalline powder or particle
**Melting Range (°C):** 183.0 ~ 187.0
**Solubility:** Lipid
**Transmittance %:** 425nm ≥ 98.0 | 500nm ≥ 98.0
**Volatile Loss %:** ≤ 0.30
**Acidity Value (mg KOH/g):** ≤ 0.30
**Main Content %:** ≥ 99.0
**Content of 2,4-Di-Tert-Buty|phenol %:** ≤ 0.20

## STORAGE

This product is stable under normal conditions and does not have any special storage requirements. However, it should be protected from moisture and heat.

## RECOMMENDED DOSAGE

The typical dosage range is 0.05% to 0.30%.

## PACKAGING

The product is packaged in PE bags. The net weight per bag is 20kg or 25kg. The pallet is wrapped, with a net weight of 500 kg or 625 kg.

## PROPERTIES

It is readily soluble in organic solvents such as benzene, chloroform, and cyclohexane, and slightly soluble in esters, but insoluble in water and cold alcohols. It is low in toxicity, exhibits good thermal stability and water extraction resistance, and effectively decomposes hydrogen peroxide formed during the thermal processing of polymers.

## PERFORMANCE

It is an organic phosphite antioxidant featuring low volatility and excellent hydrolysis resistance. It effectively protects oxidation-prone polymers from molecular weight changes—such as chain scission or crosslinking—and yellowing during processing steps including compounding, pelletizing, molding, and recycling.

## APPLICATIONS

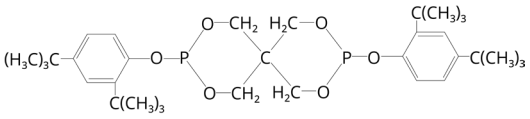
When blended with phenolic antioxidants and other compatible stabilizers, it can achieve specific stability requirements. It is also effective in synergy with other antioxidants and can be used in polyolefins and olefin copolymers, such as polyethylene (HDPE, LLDPE), polypropylene, polybutene, and ethylene-vinyl acetate copolymers. Additionally, it is suitable for polycarbonates, polyamides, polyesters, polystyrene-based homopolymers and copolymers, adhesives (both natural and synthetic resins), elastomers like BR, SEBS, SBS, and other organic materials.

# YFK-626

*Phosphite AO*

## DETAILS

**Chemical Name:** Bis-(2,4-Di-Tert-Butyl-Pheny)-Phosphiterythritol Diphosphite
**Chemical Formula:** $C_{33}H_{50}O_6P_2$
**Cas No.:** 26741-53-7
**Molecular Weight:** 604



## SPECIFICATIONS

**Appearance:** White powder or particle
**Melting Range (°C):** 170.0 ~ 180.0
**Volatile Loss (80°C) %:** ≤ 1.0
**Acidity Value (mg KOH/g):** ≤ 1.0
**Free 2,4-di-tert-butylphenol (HPLC), %:** ≤ 1.0
**Main Content (HPLC) %:** ≥ 96.0
**Active Ingredient Content %:** ≥ 98.0

## APPLICATIONS

It is typically not used as a standalone additive but in combination with phenolic antioxidants such as YFK-1010 and YFK-1076, where it significantly enhances the thermal stability of polymers during processing. The additive is widely applicable to PE, PP, PS, polyamide, polycarbonate, ABS, and other polymer systems.

## STORAGE

This product is stable under normal conditions and does not have any special storage requirements. However, it should be protected from moisture and heat.

## PACKAGING

The product is packaged in cardboard boxes lined with aluminum foil bags. The net weight per box is 25 kg. The pallet is wrapped, with a net weight of 500 kg.

## PROPERTIES

It is readily soluble in organic solvents such as benzene, chloroform, and cyclohexane, and slightly soluble in phenolic compounds, but insoluble in water and cold alcohols. It is low in toxicity, exhibits good thermal stability and water extraction resistance, and effectively decomposes hydrogen peroxide formed during the thermal processing of polymers.

## PERFORMANCE

It is a high-performance phosphite antioxidant optimized for high-temperature applications exceeding 300 °C. The material provides outstanding processing stability, color retention, and light stability, making it particularly suitable for polymers subjected to repeated high-temperature extrusion and molding. It is widely applied in polyolefins (PE, PP), PBT, PET, polypropylene spinning, and other resins requiring high-temperature resistance and color protection. YFK-626 enhances polymer stability during compounding, processing, and end use, reduces thermal and oxidative degradation, and improves anti-fading performance under flue gas exposure. With a higher phosphorus content than conventional phosphite antioxidants, it offers superior efficiency at low dosage and can also act as a synergistic light stabilizer in combination with benzotriazole or benzophenone.

## RECOMMENDED DOSAGE

The typical dosage range is 0.05% to 0.20%.

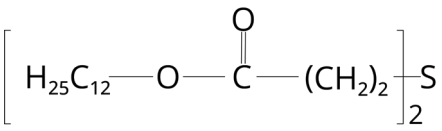
# YFK-DLTDP

*Thioester AO*

## DETAILS

**Chemical Name:** Dodecyl 3-(3-dodecyloxy-3-oxopropylsulfanyl) propanoate

**Chemical Formula:** $C_{30}H_{58}O_4S$



## SPECIFICATIONS

**Appearance:** White granules or powder
**Melting Range (°C):** 39.5 ~ 41.5
**Acidity Value (mg KOH/g):** ≤ 0.05
**Platinum-Cobalt Color:** ≤ 60
**Ash content %:** ≤ 0.01
**Iron Content %:** $3.0x10^{-4}$
**Volatiles %:** ≤ 0.05

## RECOMMENDED DOSAGE

The typical dosage range is 0.05% ~ 1.0%.

## PROPERTIES

It is a high-performance thioester-based secondary antioxidant, characterized by low volatility, minimal loss during thermal processing, and non-staining properties. It is non-discoloring.

## APPLICATIONS

It is widely used in polyethylene (PE), polypropylene (PP), ABS resin, and other polymers.

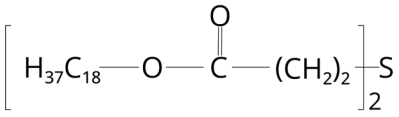
# YFK-DSTDP

*Thioester AO*

## DETAILS

**Chemical Name:** Octadecyl 3-(3-octadecyloxy-3-oxopropylsulfanyl)propanoate

**Chemical Formula:** $C_{42}H_{82}O_4S$



## SPECIFICATIONS

**Appearance:** White granules or powder
**Melting Range (°C):** 63.5 ~ 68. 5
**Acidity Value (mg KOH/g):** ≤ 0.05
**Sponification Value (mg KOH/g):** 160.0 – 170.0
**Platinum-Cobalt Color:** ≤ 60
**Ash content %:** ≤ 0.01
**Volatile Loss %:** ≤ 0.05
**Residue (2 mm) %:** ≤ 2.0

## RECOMMENDED DOSAGE

The typical dosage range is 0.1% ~ 1.0%.

## PROPERTIES

It is a high-performance thioester-based secondary antioxidant, characterized by low volatility, minimal loss during thermal processing, and non-staining properties. It is non-discoloring.

## APPLICATIONS

It exhibits excellent synergistic effects when used with primary antioxidants such as 1010, 1076, and CA. It is widely used in polyethylene (PE), polypropylene (PP), ABS resin, and other polymers.

## APPLICATIONS

It is generally not used as a standalone additive but is typically combined with phenolic and phosphite antioxidants such as Antioxidants 330, 1010, 1076, 3114, 168, and 626. In such synergistic systems, it enhances polymer stability during thermal processing. When compounded with phenolic antioxidants, it is widely applicable to PE, PP, PS, polyurethane, polycarbonate, ABS, and other polymer materials.

## STORAGE

This product is chemically stable; however, exposure to moisture, heat, and light should be avoided. The product must not be stored together with oxidizing agents.

## RECOMMENDED DOSAGE

The typical dosage range is 0.01% to 0.20%.

## PACKAGING

The product is packaged in cardboard boxes lined with aluminum foil bags. The net weight per box is 25 kg.

## SPECIFICATIONS

**Appearance:** White powder
**Melting Range (°C):** 93.0 ~ 98.0
**Volatile Loss (80°C) %:** ≤ 0.5

## PROPERTIES

It is a white powder, insoluble in water, cold alcohol, and most common organic solvents, but slightly soluble in esters. The material is low in toxicity and exhibits good thermal stability along with resistance to water extraction. During polymer thermal processing, it effectively scavenges carbon radicals, hydroperoxides, and quinone compounds.

## PERFORMANCE

It is a high-temperature phosphite antioxidant designed for processing under high and super-high temperature conditions. It provides excellent processing stability, strong color retention, and good light stability, thereby maintaining and enhancing the original tone of polymers while improving processing performance. In addition to protecting polymers from degradation, YFK-4001 penetrates polymer particles to deliver extended stabilization. It is widely applied in polyolefins (PE and PP), PBT, PET, and other resins requiring high-temperature resistance and color protection, and is especially effective in plastic products exposed to repeated high-temperature extrusion and processing. The additive enhances polymer stability during compounding, production, and end use, reduces thermal and oxidative degradation, and improves resistance to flue gas–induced fading. Offering high performance at low dosage, YFK-4001 enables efficient formulation. Compared with conventional phosphite antioxidants, it demonstrates superior thermal stability.

## DETAILS

**Ingredients:** It is a compound antioxidant system composed of the primary antioxidant YFK-1010 and the secondary antioxidant YFK-168

## STORAGE

This product should be stored in a cool area designed for chemical storage.

## RECOMMENDED DOSAGE

The typical dosage range is 0.05% to 0.30%.

## PACKAGING

The product is packaged in cartons lined with plastic bags. The net weight of each carton is 25 kg. Customized packing methods are available.

## SPECIFICATIONS

**Appearance:** White powder or columnar particle
**Solubility:** Clear
**Volatile Loss %:** ≤ 0.50
**Transmittance %:** 425nm ≥ 96.0 | 500nm ≥ 98.0
**Ingredients YFK-B215 %:** 1010:168 = 1:2 (±3)

## PROPERTIES

It is supplied as a white powder with no odor. It is soluble in benzene, chloroform, hexane, ethyl acetate, and similar solvents, but insoluble in water.

## PERFORMANCE

It is a blend of YFK-1010 and YFK-168, featuring a high phosphite content. It is recommended for demanding processing conditions and provide significant benefits, including maintenance of original melt flow, low color formation, and long-term thermal stability.

## APPLICATIONS

It is used in polyolefins and olefin copolymers, including polyethylene, polypropylene, polybutene, and ethylene-vinyl acetate copolymers. The blend is also applicable to other polymers such as engineering plastics, styrene homo- and copolymers, polyurethanes, elastomers, adhesives, and various organic substrates.

# YFK-B225



## DETAILS

**Ingredients:** It is a compound antioxidant system composed of the primary antioxidant YFK-1010 and the secondary antioxidant YFK-168.

## STORAGE

This product should be stored in a cool area designed for chemical storage.

## RECOMMENDED DOSAGE

The typical dosage range is 0.05% to 0.30%.

## PACKAGING

The product is packaged in cartons lined with plastic bags. The net weight of each carton is 25 kg. Customized packing methods are available.

## SPECIFICATIONS

**Appearance:** White powder or columnar particle
**Solubility:** Clear
**Volatile Loss %:** ≤ 0.50
**Transmittance %:** 425nm ≥ 96.0 | 500nm ≥ 98.0
**Component Content of YFK-B225 %:** 1010:168 = 1:1 (±3%)

## PROPERTIES

It is supplied as a white powder with no odor. It is soluble in benzene, chloroform, hexane, ethyl acetate, and similar solvents, but insoluble in water.

## PERFORMANCE

It is a blend of YFK-1010 and YFK-168, featuring a high phosphite content. It is recommended for demanding processing conditions and provide significant benefits, including maintenance of original melt flow, low color formation, and long-term thermal stability.

## APPLICATIONS

It is used in polyolefins and olefin copolymers, including polyethylene, polypropylene, polybutene, and ethylene-vinyl acetate copolymers. The blend is also applicable to other polymers such as engineering plastics, styrene homo- and copolymers, polyurethanes, elastomers, adhesives, and various organic substrates.

# YFK-B561

## DETAILS

**Ingredients:** It is a compound antioxidant system composed of the primary antioxidant YFK-1010 and the secondary antioxidant YFK-168.

## STORAGE

This product should be stored in a cool area designed for chemical storage.

## RECOMMENDED DOSAGE

The typical dosage range is 0.05% to 0.30%.

## PACKAGING

The product is packaged in cartons lined with plastic bags. The net weight of each carton is 25 kg. Customized packing methods are available.

## SPECIFICATIONS

**Appearance:** White powder or columnar particle
**Solubility:** Clear
**Volatile Loss %:** ≤ 0.50
**Transmittance %:** 425nm ≥ 96.0 | 500nm ≥ 98.0
**Component Content of YFK-B561 %:** 1010:168 = 1:4 (±2%)

## PROPERTIES

It is supplied as a white powder with no odor. It is soluble in benzene, chloroform, hexane, ethyl acetate, and similar solvents, but insoluble in water.

## PERFORMANCE

It is a blend of YFK-1010 and YFK-168, featuring a high phosphite content. It is recommended for demanding processing conditions and provide significant benefits, including maintenance of original melt flow, low color formation, and long-term thermal stability.

## APPLICATIONS

It is used in polyolefins and olefin copolymers, including polyethylene, polypropylene, polybutene, and ethylene-vinyl acetate copolymers. The blend is also suitable for other polymers such as engineering plastics, styrene homo- and copolymers, polyurethanes, elastomers, adhesives, and various organic substrates.



# YFK-B900

## DETAILS

**Ingredients:** It is a compound antioxidant prepared from the primary antioxidant YFK-1076 and the high-efficiency auxiliary antioxidant YFK-168.

## STORAGE

This product should be stored in a cool area designed for chemical storage.

## RECOMMENDED DOSAGE

The typical dosage range is 0.05% to 0.30%.

## PACKAGING

The product is packaged in cartons with liner bags. The net weight of each carton is 20 kg or 25 kg. Customized packing methods are also available.

## SPECIFICATIONS

**Appearance:** White powder or columnar particle
**Solubility:** Clear
**Volatile Loss %:** ≤ 0.30
**Transmittance %:** 425nm ≥ 97.0 | 500nm ≥ 98.0
**Component Content of YFK-B900 %:** 1076:168 = 1:4 (±2%)

## PROPERTIES

It exhibits stable properties and is supplied as a white powder or columnar particles. It is soluble in benzene, chloroform, cyclohexane, ethyl acetate, and other organic solvents, but insoluble in water.

## PERFORMANCE

The synergistic combination of YFK-1076 and YFK-168 effectively inhibits thermal and oxidative degradation of polymers.

## APPLICATIONS

It is a low-volatility, extraction-resistant composite antioxidant with excellent processing stability for polyolefins and long-term protection of polymer products. The synergistic effect of YFK-1076 and YFK-168 effectively inhibits thermal and oxidative degradation of polymers. It is widely applicable to polyolefins (PE, PP, PS), polyamide, polycarbonate, ABS resin, and other polymer materials. Additionally, it is increasingly used as a high-temperature, heat- and oxygen-resistant additive in oils under severe operating conditions, such as quenching oils.

# One Pack Additives

## YFK-GM-19 (PE thin wall injection molding)

*PE injection molding grade*

### DETAILS

**Ingredients:** Antioxidant, auxiliary antioxidant, acid scavenger zinc stearate and other components in a certain proportion.

### SPECIFICATIONS

**Appearance:** White columnar particles
**Particle Size (mm):** 2.0 ~ 3.0
**Particle length (mm):** 3.0 ~ 8.0
**Volatile Loss %:** ≤ 1.5

### PROPERTIES

It provides excellent oxidation resistance and long-term color protection. When used in linear low-density polyethylene (LLDPE) thin-wall injection molding resins, the resulting material meets the technical requirements of national standards. The product is environmentally friendly, heat-resistant, water-extraction resistant, and non-toxic.

### APPLICATIONS

It is a high-performance compound antioxidant designed for high-temperature processing. It provides excellent processing stability and color retention for polyethylene resins and is widely applicable in the production of linear low-density polyethylene (LLDPE) thin-wall injection molding resin products.

### STORAGE

This product is stable under normal conditions and does not have any special storage requirements. However, it should be protected from moisture and heat.

### PACKAGING

The product is packaged in master cartons with plastic liners or in cardboard barrels with plastic liners. The net weight of each carton or barrel is 25 kg. Customized packing methods are available.

## YFK-PE-14 (PE injection molding)

*PE injection molding grade*

### DETAILS

**Ingredients:** Antioxidant, auxiliary antioxidant, acid scavenger zinc stearate and other components in a certain proportion.

### SPECIFICATIONS

**Appearance:** White or off-white column or spherical particles
**Particle Size (mm):** 2.0 ~ 3.0
**Particle length (mm):** 3.0 ~ 8.0
**Volatile Loss %:** ≤ 1.5
**Fines Content (20 mesh), %:** ≤ 2.0

### PROPERTIES

It provides excellent oxidation resistance and long-term color protection. When incorporated into linear low-density polyethylene (LLDPE) thin-wall injection molding resins, the resulting material meets national technical standards. The product is environmentally friendly, heat-resistant, water-extraction resistant, and non-toxic.

### APPLICATIONS

It is a high-performance compound antioxidant engineered for high-temperature processing of polyethylene resins. It provides superior processing stability and long-term color retention, making it suitable for the manufacture of linear low-density polyethylene (LLDPE) injection-molded products. The additive ensures polymer integrity under thermal stress and contributes to extended service life of the final material.

### STORAGE

This product is stable under normal conditions and does not have any special storage requirements. However, it should be protected from moisture and heat.

### PACKAGING

The product is packaged in cartons with plastic liners or in cardboard barrels with plastic liners. The net weight per package is 25 kg. Customized packing methods are available.

## YFK-7042 (PE film)

*PE film grade*

### DETAILS

**Ingredients:** Antioxidant, auxiliary antioxidant, antistatic agent 1800, acid scavenger zinc stearate in a certain proportion.

### SPECIFICATIONS

**Appearance:** White or light yellow columnar particles
**Volatile Loss %:** ≤ 1.5
**Particle Size (mm):** 2.0 ~ 3.0
**Particle length (mm):** 3.0 ~ 8.0
**Stacking density (g/cm$^3$):** 0.40 ~ 0.60

### PROPERTIES

It exhibits outstanding processing stability for polyethylene 7042 products, providing long-term protection. Through the synergistic effect of primary and auxiliary antioxidants, it effectively inhibits thermo-oxidative and oxidative degradation of linear low-density polyethylene 7042.

### APPLICATIONS

It is a low-volatility, extraction-resistant composite antioxidant, providing superior processing stability and long-term thermal protection for polyethylene 7042. By leveraging the synergistic effects of multiple antioxidants and acid scavengers, it effectively suppresses thermal and oxidative degradation during processing. The incorporation of antistatic agent 1800 mitigates static charge buildup during film blowing, ensuring safe, stable, and continuous production while meeting downstream performance requirements.

### STORAGE

This product is stable under normal conditions and does not have any special storage requirements. However, it should be protected from moisture and heat.

### RECOMMENDED DOSAGE

The typical dosage range is 0.14% to 0.20%.

### PACKAGING

The product is packaged in master cartons with plastic liners or in cardboard barrels with plastic liners. The net weight of each carton or barrel is 25 kg. Customized packing methods are available.

## YFK-3100G (PE pipe material)

*PE pipe grade*

### DETAILS

**Ingredients:** Antioxidant, auxiliary antioxidant, acid scavenger and processing aids in a certain proportion.

### SPECIFICATIONS

**Appearance:** White columnar particles
**Particle Size (mm):** 2.0 ~ 3.0
**Particle length (mm):** 3.0 ~ 8.0
**Volatile Loss %:** ≤ 1.5
**Stacking density (g/cm$^3$):** 0.45 ~ 0.65
**Acidity Value (mg KOH/g):** ≤ 1.0

### PROPERTIES

It provides excellent oxidation resistance and long-term color protection. When used in linear low-density polyethylene (LLDPE) thin-wall injection molding resins, the resulting material meets national technical standards. The product is environmentally friendly, heat-resistant, water-extraction resistant, and non-toxic.

### APPLICATIONS

It is a high-performance compound antioxidant engineered for high-temperature processing of HDPE pipe resins. It delivers superior processing stability and long-term color retention, ensuring polymer integrity during extrusion and molding. The additive is suitable for the production of HDPE pipe material products requiring enhanced thermal stability and consistent quality.

### STORAGE

This product is stable under normal conditions and does not have any special storage requirements. However, it should be protected from moisture and heat.

### PACKAGING

The product is packaged in cartons with plastic liners or in cardboard barrels with plastic liners. The net weight per unit is 25 kg. Customized packaging is available.

## YFK-Premix 100N (PE pipe material)

*PE pipe grade*

### DETAILS

**Ingredients:** Main antioxidant, auxiliary antioxidant and acid scavenger in a certain proportion.

### SPECIFICATIONS

**Appearance:** White columnar particles
**Particle Size (mm):** 2.0 ~ 3.0
**Particle length (mm):** 3.0 ~ 8.0
**Volatile Loss %:** ≤ 1.0
**Stacking density (g/cm$^3$):** 0.45~0.60
**Fine powder content %:** ≤ 1.0

### PROPERTIES

It provides excellent oxidation resistance and long-term color protection. When incorporated into linear low-density polyethylene (LLDPE) thin-wall injection molding resins, the resulting material meets national technical standards. The product is environmentally friendly, heat-resistant, water-extraction resistant, and non-toxic.

### APPLICATIONS

It is a nhigh-performance compound antioxidant engineered for high-temperature processing. It provides superior processing stability and long-term color retention for HDPE pipe resins and is widely applicable in the production of HDPE water supply and gas pipe materials.

### STORAGE

This product is stable under normal conditions and does not have any special storage requirements. However, it should be protected from moisture and heat.

### RECOMMENDED DOSAGE

The typical dosage range is  0.30% to 0.45%.

### PACKAGING

The product is packaged in cartons with plastic liners or in cardboard barrels with plastic liners. The net weight per unit is 25 kg. Customized packaging is also available.

## YFK-9300A (PE blown molding)

*PE blow molding gade*

### DETAILS

**Ingredients:** Antioxidant, auxiliary antioxidant and acid scavenger and other components in a certain proportion.

### SPECIFICATIONS

**Appearance:** White columnar particles
**Volatile Loss %:** ≤ 2.0
**Particle Size (mm):** 2.0 ~ 3.0
**Acidity Value (mg KOH/g):** ≤ 2.0

### PROPERTIES

It provides excellent oxidation resistance and long-term color protection. When used in HDPE hollow blow molding resins, the resulting material meets national technical standards. The product is environmentally friendly, heat-resistant, water-extraction resistant, and non-toxic.

### APPLICATIONS

It is a high-performance compound antioxidant designed for high-temperature processing. It provides superior processing stability and long-term color retention for polyethylene resins and is widely applicable in the production of HDPE hollow blow molding resin products.

### STORAGE

This product is stable under normal conditions and does not have any special storage requirements. However, it should be protected from moisture and heat.

### PACKAGING

The product is packaged in cartons with plastic liners or in cardboard barrels with plastic liners. The net weight per unit is 25 kg. Customized packaging is available.

## YFK-MM-08 (PE blown molding)

*PE blow molding gade*

### DETAILS

**Ingredients:** Antioxidant, auxiliary antioxidant and other components in a certain proportion.

### SPECIFICATIONS

**Appearance:** Off-white columnar particles
**Volatile Loss %:** ≤ 0.5
**Particle Size (mm):** 2.0 ~ 3.0

### PROPERTIES

It provides excellent oxidation resistance and long-term color protection. When used in HDPE hollow blow molding resins, the resulting material meets national technical standards. The product is non-polluting, heat-resistant, water-extraction resistant, and non-toxic, making it an environmentally friendly additive.

### APPLICATIONS

It is a high-performance compound antioxidant designed for high-temperature processing. It provides superior processing stability and long-term color retention for polyethylene resins and is widely applied in the production of HDPE hollow blow molding resin products.

### STORAGE

This product is stable under normal conditions and does not have any special storage requirements. However, it should be protected from moisture and heat.

### PACKAGING

The product is packaged in cartons with plastic liners or in cardboard barrels with plastic liners. The net weight per unit is 25 kg. Customized packaging is available.

## YFK-9305 (PE bottle cap material)

*PE bottle cap grade*

### DETAILS

**Ingredients:** Antioxidant, release agent, slip agent, acid scavenger and other components in a certain proportion. It can also be appropriately adjusted the components and proportions for compound granulation as per the specific production requirements of customers.

### SPECIFICATIONS

**Appearance:** White columnar particles
**Volatile Loss %:** ≤ 2.0
**Particle Size (mm):** 2.0 ~ 3.0
**Acidity Value (mg KOH/g):** ≤ 2.0
**Alkylphenol %:** ≤ 2.0

### PROPERTIES

It provides excellent oxidation resistance, ensuring that polyethylene materials produced with this additive meet the technical requirements of national standards. It maintains stable color, allowing products to be manufactured in various color schemes. Materials processed with YFK-9305 exhibit good injection molding performance, easy demolding, and a low incidence of defects such as crooked bottle caps, resulting in a high final pass rate. The additive is fully compliant with food packaging regulations, and all components and dosages meet the requirements of GB9685-2008.

### APPLICATIONS

It is a high-performance composite antioxidant designed for high-temperature processing. It provides excellent processing stability and color retention for polyethylene resins. The additive is primarily used in HDPE resins, enhancing processing stability and reducing the incidence of defects, such as crooked caps, during injection molding.

### STORAGE

This product is stable under normal conditions and does not have any special storage requirements. However, it should be protected from moisture and heat.

### RECOMMENDED DOSAGE

The typical dosage range is 0.2% to 0.4%.

### PACKAGING

The product is packaged in cartons with plastic liners or in cardboard barrels with plastic liners. The net weight per unit is 25 kg. Customized packaging is available.

## YFK-PE-16A (PE brushed material)

*PE fiber grade*

### DETAILS

**Ingredients:** Antioxidant, auxiliary antioxidant, acid scavenger and other componentsin a certain proportion.

### SPECIFICATIONS

**Appearance:** White or off-white column particles
**Volatile Loss %:** ≤ 1.5
**Particle Size (mm):** 2.0 ~ 3.0
**Fines Content (20 mesh), %:** ≤ 2.0

### PROPERTIES

It provides excellent oxidation resistance and long-term color protection. When used in HDPE brushed resin materials, the resulting product meets national technical standards. The additive is non-polluting, heat-resistant, water-extraction resistant, and non-toxic, making it a high-performance, environmentally friendly additive.

### APPLICATIONS

It is a high-performance compound antioxidant designed for high-temperature processing. It provides excellent processing stability and color retention for polyethylene resins and is widely applied in the production of HDPE brushed resin products.

### STORAGE

This product is stable under normal conditions and does not have any special storage requirements. However, it should be protected from moisture and heat.

### PACKAGING

The product is packaged in cartons with plastic liners or in cardboard barrels with plastic liners. The net weight per unit is 25 kg. Customized packaging is available.

## YFK-DGDA-6094 (PE brushed material)

*PE fiber grade*

### DETAILS

**Ingredients:** Antioxidant, auxiliary antioxidant, acid scavenger and other componentsin a certain proportion.

### SPECIFICATIONS

**Appearance:** White or milky white columnar particles
**Volatile Loss %:** ≤ 1.0
**Particle Size (mm):** 2.0 ~ 3.0
**Fines Content (20 mesh), %:** ≤ 2.0

### PROPERTIES

It provides excellent oxidation resistance and long-term color protection. When used in HDPE brushed resin materials, the resulting product meets national technical standards. The additive is non-polluting, heat-resistant, water-extraction resistant, and non-toxic, making it a high-performance, environmentally friendly additive.

### APPLICATIONS

It is a high-performance compound antioxidant designed for high-temperature processing. It provides excellent processing stability and color retention for polyethylene resins and is widely applied in the production of HDPE brushed resin products.

### STORAGE

This product is stable under normal conditions and does not have any special storage requirements. However, it should be protected from moisture and heat.

### PACKAGING

The product is packaged in cartons with plastic liners or in cardboard barrels with plastic liners. The net weight per unit is 25 kg. Customized packaging is available.

## YFK-9708 (PE packaging film)

*PE packaging film grade*

### DETAILS

**Ingredients:** Antioxidant, auxiliary antioxidant, acid scavenger in a certain proportion.

### SPECIFICATIONS

**Appearance:** White columnar particles
**Volatile Loss %:** ≤ 1.0
**Particle Size (mm):** 2.0 ~ 3.0
**Stacking density (g/cm$^3$):** 0.40 ~ 0.60
**Fine powder content %:** ≤ 1.0

### PROPERTIES

It provides excellent oxidation resistance and long-term color protection. When used in HDPE film packaging resin materials, the resulting product meets national technical standards. The additive is non-polluting, heat-resistant, water-extraction resistant, and non-toxic, making it a high-performance, environmentally friendly additive.

### APPLICATIONS

It is a high-performance compound antioxidant designed for high-temperature processing. It provides excellent processing stability and color retention for polyethylene resins and is widely applied in the production of HDPE film packaging resin products.

### STORAGE

This product is stable under normal conditions and does not have any special storage requirements. However, it should be protected from moisture and heat.

### PACKAGING

The product is packaged in cartons with plastic liners or in cardboard barrels with plastic liners. The net weight per unit is 25 kg. Customized packaging is available.

## YFK-9803 (PE high rigidity film)

*PE packaging film grade*

### DETAILS

**Ingredients:** Antioxidant, auxiliary antioxidant, and the third component in a certain proportion.

### SPECIFICATIONS

**Appearance:** White or off-white column particles
**Volatile Loss %:** ≤ 1.5
**Particle Size (mm):** 2.0 ~ 3.0
**Stacking density (g/cm$^3$):** 0.40 ~ 0.60

### PROPERTIES

It provides excellent oxidation resistance and long-term color protection. When used in HDPE high-rigidity film resin materials, the resulting product meets national technical standards. The additive is non-polluting, heat-resistant, water-extraction resistant, and non-toxic, making it a high-performance, environmentally friendly additive.

### APPLICATIONS

It is a high-performance compound antioxidant designed for high-temperature processing. It provides excellent processing stability and color retention for polyethylene resins and is widely applied in the production of HDPE high-rigidity film resin products.

### STORAGE

This product is stable under normal conditions and does not have any special storage requirements. However, it should be protected from moisture and heat.

### PACKAGING

The product is packaged in cartons with plastic liners or in cardboard barrels with plastic liners. The net weight per unit is 25 kg. Customized packaging is available.

## YFK-UHMWPE series (UHMWPE)

*PE packaging film grade*

### DETAILS

**Ingredients:** Antioxidant, auxiliary antioxidant, and other component in a certain proportion.

### SPECIFICATIONS

**Appearance:** White or off-white column particles
**Volatile Loss %:** ≤ 1.5
**Particle Size (mm):** 2.0 ~ 3.0
**Particle length (mm):** 3.0 ~ 8.0

### PROPERTIES

It provides excellent oxidation resistance and long-term color protection. When used in UHMWPE resin materials, the resulting product meets national technical standards. The additive is non-polluting, heat-resistant, water-extraction resistant, and non-toxic, making it a high-performance, environmentally friendly additive.

### APPLICATIONS

It is a high-performance compound antioxidant designed for high-temperature processing. It provides excellent processing stability and color retention for polyethylene resins and is widely applied in the production of UHMWPE resin products.

### STORAGE

This product is stable under normal conditions and does not have any special storage requirements. However, it should be protected from moisture and heat.

### PACKAGING

The product is packaged in cartons with plastic liners or in cardboard barrels with plastic liners. The net weight per unit is 25 kg. Customized packaging is available.

## YFK-9301G (PP-film)

*PP film grade*

### DETAILS

**Ingredients:** Antioxidant 1010, antioxidant 626, antioxidant 168, acid absorber and other components in a certain proportion, mixed and granulated by a special process.

### SPECIFICATIONS

**Appearance:** White or light yellow columnar particles
**Volatile Loss %:** ≤ 2.0
**Alkylphenol %:** ≤ 2.0
**Particle size (mm):** 2.0 ~ 3.0

### PROPERTIES

It is supplied as white or light-yellow columnar particles with stable properties.

### PERFORMANCE

It provides outstanding processing stability and long-term protection for BOPP film products. Additionally, it significantly reduces dust generation during processing, minimizing operator exposure and improving workplace safety.

### APPLICATIONS

It is a high-performance high-temperature antioxidant with good light stability. It provides excellent processing stability and color retention for BOPP film products. The additive is suitable for BOPP films requiring high-temperature processing and strong color protection, and it performs effectively in applications involving repeated high-temperature extrusion.

### STORAGE

This product is stable under normal conditions and does not have any special storage requirements. However, it should be protected from moisture and heat.

### PACKAGING

The product is packaged in cardboard boxes lined with aluminum foil bags. The net weight per unit is 25 kg. Customized packaging is available.

## YFK-WH-207S (cast PP (CPP) film)

*CPP film grade*

### DETAILS

**Ingredients:** Antioxidants, auxiliary antioxidants, acid absorbers and other components in a certain proportion. According to the specific requirements of customers, the components and proportions can be appropriately adjusted and granulated.

### SPECIFICATIONS

**Appearance:** White columnar particles
**Particle length (mm)** 3.0 ~ 8.0
**Particle Size (mm):** 2.0 ~ 3.0

### PROPERTIES

It provides excellent oxidation resistance, producing CPP films with good stiffness and toughness. The additive ensures stable color and high transparency; roll sections of cast films appear bluish-white. When applied in the production of CPP aluminized-grade cast films, it supports firm and easily adhered aluminum plating, meeting continuous production requirements and fully replacing special resins used for general cast films. It is suitable for manufacturing various types of cast films, including general-purpose, cooking, and aluminized films, with applications in food and pharmaceutical packaging industries.

### APPLICATIONS

It is a high-performance compound antioxidant designed for high-temperature processing. It provides excellent processing stability and color retention for polypropylene (PP) resins. The additive is primarily used in cast PP (CPP) film resins, enhancing processing stability and improving film transparency by reducing haze.

### STORAGE

This product is stable under normal conditions and does not have any special storage requirements. However, it should be protected from moisture and heat.

### PACKAGING

The product is packaged in cartons with plastic liners or in cardboard barrels with plastic liners. The net weight per unit is 25 kg. Customized packaging is available.

## YFK-L5E89 (PP wire drawing material)

*PP wire & cable grade*

### DETAILS

**Ingredients:** Antioxidants, auxiliary antioxidants and acid scavenger in a certain proportion through special process.

### SPECIFICATIONS

**Appearance:** White columnar particles
**Volatile Loss %:** ≤ 1.0
**Particle Size (mm):** 2.0 ~ 3.0

### PROPERTIES

It is stable, non-toxic, odorless, and insoluble in organic solvents such as toluene and methanol at room temperature. The additive is supplied as white columnar particles.

### PERFORMANCE

It provides outstanding processing stability and long-term protection for polyolefins. Additionally, it significantly reduces dust generation during processing, minimizing operator exposure and improving workplace safety.

### APPLICATIONS

It is a high-performance polypropylene additive with good light stability. It provides excellent processing stability and color retention for polypropylene L5E89 wire-drawing materials. The additive exhibits strong anti-oxidation performance even at low dosages.

### STORAGE

This product is stable under normal conditions and does not have any special storage requirements. However, it should be protected from moisture and heat.

### PACKAGING

The product is packaged in cartons with plastic liners or in cardboard barrels with plastic liners. The net weight per unit is 25 kg. Customized packaging is available.

# YFK-T30S (PP wire drawing material)

*PP wire & cable grade*

### DETAILS

**Ingredients:** Antioxidants, auxiliary antioxidants and acid scavenger in a certain proportion through special process.

### SPECIFICATIONS

**Appearance:** White or light yellow columnar particles
**Volatile Loss %:** ≤ 2.0
**Particle Size (mm):** 2.0 ~ 3.0
**Acidity value (mg KOH/g):** ≤ 1.0
**Stacking density (g/cm$^3$):** 0.40 ~ 0.60

### PROPERTIES

It is a high-performance antioxidant with stable properties, non-toxic, odorless, and insoluble in organic solvents such as toluene and methanol at room temperature. The additive is supplied as white or light-yellow columnar particles.

### PERFORMANCE

It provides outstanding processing stability and long-term protection for polyolefins, while significantly reducing dust generation during processing to minimize operator exposure and improve workplace safety.

### APPLICATIONS

It is a high-performance polypropylene additive with good light stability. It provides excellent processing stability and color retention for polypropylene T30S wire-drawing materials and exhibits strong anti-oxidation performance even at low dosages.

### STORAGE

This product is stable under normal conditions and does not have any special storage requirements. However, it should be protected from moisture and heat.

### PACKAGING

The product is packaged in cartons with plastic liners or in cardboard barrels with plastic liners. The net weight per unit is 25 kg. Customized packaging is available.

# YFK-1006 (PP thin walled injection molding)

*PP injection molding grade*

### DETAILS

**Ingredients:** Antioxidants, auxiliary antioxidants, nucleating agent HPN-68L,acid scavenger and other components in a certain proportion.According to the specific requirements of customers, the components and proportions can be appropriately adjusted and granulated.

### SPECIFICATIONS

**Appearance:** White
**Volatile Loss %:** ≤ 1.5
**Particle Size (mm):** 2.0 ~ 3.0
**Acidity Value (mg KOH/g):** ≤ 1.0
**Stacking density (g/cm$^3$):** 0.45 ~ 0.60
**Fine power content %:** ≤1.0

### PROPERTIES

It is a high-performance additive for polypropylene resin used in thin-wall injection molding (H9018). It ensures effective and stable antioxidant performance while meeting quality requirements for this grade of polypropylene resin. The additive is non-toxic, odorless, and pollution-free, improving the hygienic properties of the final product. When incorporated, it does not affect appearance or produce any peculiar odors. With good heat resistance and compatibility, the nucleating agent HPN-68L in YFK-1006 maintains stable properties, effectively controlling crystallization and the formation of the crystal structure in this type of polypropylene resin.

### APPLICATIONS

It is a high-performance compound antioxidant designed for high-temperature processing. It provides excellent processing stability and color retention for polypropylene resins. The additive is primarily used in thin-wall injection molding polypropylene resins, enhancing high rigidity and impact resistance of the final products.

### STORAGE

This product is stable under normal conditions and does not have any special storage requirements. However, it should be protected from moisture and heat.

### RECOMMENDED DOSAGE

The typical dosage range is 0.15% to 0.28%.

### PACKAGING

The product is packaged in cartons with plastic liners or in cardboard barrels with plastic liners. The net weight per unit is 25 kg. Customized packaging is available.

# YFK-MP303 (PP inejction molding)

*PP injection molding grade*

## DETAILS

**Ingredients:** Tetrakis[beta-(3,5-di-tert-butyl-4-hydroxyphenyl) propionic acid]pentaerythritol ester (referred to as antioxidant 1010), tris(2,4-di-tert-butylphenyl) phosphite ( referred to as antioxidant 168) and calcium stearate.According to the specific requirements of customers, the components and proportions can be appropriately adjusted and granulated.

## SPECIFICATIONS

**Appearance:** White columnar particles
**Volatile Loss %:** ≤ 1.0
**Particle Size (mm):** 2.0 ~ 3.0
**Ash content %:** 4.0 ~ 6.0
**Stacking density (g/cm$^2$):** 0.44 ~ 0.56

## PROPERTIES

It is a high-performance antioxidant with stable properties, non-toxic and tasteless, supplied as white columnar particles.

## PERFORMANCE

It provides outstanding processing stability and long-term protection for polypropylene injection molding and significantly reduces dust generation during processing, minimizing operator exposure and improving workplace safety.

## APPLICATIONS

It is a high-performance additive for polypropylene injection molding. It provides excellent processing stability and good light stability for polypropylene injection-molded products.

## STORAGE

It should be stored in a ventilated, cool, and dry warehouse with cushioning beneath to prevent moisture absorption. It must be kept away from fire sources, strong acids, strong alkalis, and strong oxidants, and storage temperature should not exceed 35 °C.

## PACKAGING

The product is packaged in cartons with plastic liners or in cardboard barrels with plastic liners. The net weight per unit is 25 kg. Customized packaging is available.

# YFK-1019 (PP high melting automotive material)

*PP automotive grade*

## DETAILS

**Ingredients:** Antioxidants, auxiliary antioxidants, calcium stearate and nucleating agent in a certain proportion through a special process.

## SPECIFICATIONS

**Appearance:** Blue or light blue columnar particles
**Volatile Loss %:** ≤ 2.0
**Particle Size (mm):** 2.0 ~ 3.0
**Particle length (mm):** 2.0 ~ 8.0
**Stacking density (g/cm$^3$):** 0.40 ~ 0.60

## PROPERTIES

It has stable properties and is supplied as blue or light-blue particles. Compound powder forms can also be produced according to customer requirements.

## APPLICATIONS

It is a high-performance polypropylene integration additive that provides outstanding processing stability and long-term protection for high-melting automotive polypropylene materials. It significantly reduces dust generation during processing, minimizing operator exposure and improving workplace safety.

## STORAGE

It should be stored in a ventilated, cool, and dry warehouse with cushioning beneath to prevent moisture absorption. It must be kept away from fire sources, strong acids, strong alkalis, and strong oxidants, and storage temperature should not exceed 35 °C.

## PACKAGING

The product is packaged in cartons with plastic liners or in cardboard barrels with plastic liners. The net weight per unit is 25 kg. Customized packaging is available.

## YFK-MM-11A (PP fiber material)

*PP fiber grade*

### DETAILS

**Ingredients:** Antioxidants, acid scavengers and other components in a certain proportion through a special process.

### SPECIFICATIONS

**Appearance:** White columnar particles
**Volatile Loss %:** ≤ 1.0

### PROPERTIES

It is supplied as white or light-yellow columnar particles.

### PERFORMANCE

It is a high-performance additive that provides outstanding processing stability and long-term protection for polypropylene fiber products. It significantly reduces dust generation during processing, minimizing operator exposure. Being non-toxic, harmless, and non-polluting, it ensures compliance with environmental protection requirements during production.

### APPLICATIONS

It is a high-performance, specialized polypropylene additive that provides excellent color protection for polypropylene fiber products. It is resistant to fumigation, maintains stable color without fading, and exhibits good light stability. Additionally, it enhances high-temperature processing stability and delivers strong anti-oxidation performance even at low dosages.

### STORAGE

This product is stable under normal conditions and does not have any special storage requirements. However, it should be protected from moisture and heat.

### RECOMMENDED DOSAGE

The typical dosage range is 0.1% to 0.3%.

### PACKAGING

The product is packaged in cartons with plastic liners or in cardboard barrels with plastic liners. The net weight per unit is 25 kg. Customized packaging is available.

## YFK-PA14D (PP tube material)

*PP pipe grade*

### DETAILS

**Ingredients:** According to the specific production requirements of customers, other components such as antioxidant 1010, antioxidant 168, antioxidant 330, acid scavenger and processing aid PPA are mixed uniformly or compounded in a certain proportion.

### SPECIFICATIONS

**Appearance:** White columnar particles
**Volatile Loss %:** ≤ 1.0
**Particle Size (mm):** 2.0 ~ 3.0

### PROPERTIES

It is a high-performance additive for polypropylene pipe materials that stabilizes the melt index during processing, enabling higher production loads. The melt index remains stable even after multiple extrusions, improving the long-term service life and aging resistance of the pipe material. The additive significantly prolongs the oxidation induction period and enhances hygienic performance in copolymerized polypropylene pipes. Being non-toxic, odorless, and pollution-free, it meets safety and health requirements for food packaging and water supply systems. During extrusion, it does not affect product appearance, increases extrusion load, and ensures smooth inner and outer surfaces without introducing odors. Its heat resistance, water-extraction resistance, compatibility, and stable properties prevent migration into water, maintaining water quality.

### APPLICATIONS

It is a high-performance high-temperature antioxidant that provides excellent processing stability and color protection for resins.

### STORAGE

This product is stable under normal conditions and does not have any special storage requirements. However, it should be protected from moisture and heat.

### RECOMMENDED DOSAGE

The typical dosage range is 0.3% to 1.0%.

### PACKAGING

The product is packaged in cartons with plastic liners or in cardboard barrels with plastic liners. The net weight per unit is 25 kg. Customized packaging is available.

## YFK-9801 (PP transparent material)

*PP food packaging*

### DETAILS

**Ingredients:** Antioxidant 1010, antioxidant 168, nucleating agent NX-8000K and other functional additives in a certain proportion.

### SPECIFICATIONS

**Appearance:** Light blue or og-white columnar particles
**Volatile Loss %:** ≤ 1.5
**Stacking density (g/cm$^3$):** 0.40 ~ 0.60

### PROPERTIES

It is a high-performance additive for random copolymerized polypropylene transparent materials. It ensures effective and stable antioxidant performance while meeting the quality requirements of this grade of polypropylene resin. The additive is non-toxic, odorless, and pollution-free, enhancing the hygienic performance of the final product. When incorporated, it does not affect product appearance or generate peculiar odors. With good heat resistance and compatibility, the nucleating agent in YFK-9801 maintains stable properties, effectively controlling crystallization and the formation of the crystal structure during resin processing.

### APPLICATIONS

It is a high-performance composite antioxidant designed for high-temperature processing. It provides excellent processing stability and color retention for polypropylene resins. The additive is primarily used in random copolymer polypropylene transparent materials, effectively improving product gloss and transparency to meet the relevant index requirements of these materials.

### STORAGE

This product is stable under normal conditions and does not have any special storage requirements. However, it should be protected from moisture and heat.

### RECOMMENDED DOSAGE

The typical dosage range is 0.40% to 0.50%.

### PACKAGING

The product is packaged in cartons with plastic liners or in cardboard barrels with plastic liners. The net weight per unit is 25 kg. Customized packaging is available.

## YFK-SL-9000 series (PBT)

*Other One Pack Additives*

### DETAILS

**Ingredients:** Phenolic antioxidants, phosphite antioxidants and other functional additives in a certain proportion, mixed and granulated by a special process.

### SPECIFICATIONS

**Appearance:** White or light yellow columnar particles
**Volatile Loss %:** ≤ 3.0
**Particle Size (mm):** 2.0 ~ 3.0

### PROPERTIES

It has stable properties and is supplied as white or light-yellow columnar particles. Compound powder forms can also be produced according to customer requirements.

### PERFORMANCE

It is a high-performance additive that provides outstanding processing stability and long-term protection for PBT products. It significantly reduces dust generation during processing, minimizing operator exposure and improving workplace safety.

### APPLICATIONS

It is a high-performance additive for PBT products, providing excellent processing stability and good light stability. Only a small dosage is required during processing.

### STORAGE

This product is stable under normal conditions and does not have any special storage requirements. However, it should be protected from moisture and heat.

### RECOMMENDED DOSAGE

The typical dosage range is 0.05% to 0.30%.

### PACKAGING

The product is packaged in paper bags lined with plastic bags or in cardboard boxes lined with plastic bags. The net weight per unit is 25 kg.

# YFK-SL-9100 series (ABS)

## DETAILS

**Ingredients:** Phenolic antioxidants, phosphite antioxidants and other functional additives in a certain proportion, mixed and granulated by a special process.

## SPECIFICATIONS

**Appearance:** White or light yellow columnar particles
**Volatile Loss %:** ≤ 3.0
**Particle Size (mm):** 2.0 ~ 3.0

## PROPERTIES

It has stable properties and is supplied as white or light-yellow columnar particles. Compound powder forms can also be produced according to customer requirements.

## PERFORMANCE

It is a high-performance additive that provides outstanding processing stability and long-term protection for ABS plastic products. It significantly reduces dust generation during processing, minimizing operator exposure and improving workplace safety.

## APPLICATIONS

It is a high-performance additive for ABS plastic products, providing excellent processing stability and good light stability. Only a small dosage is required during processing.

## STORAGE

This product is stable under normal conditions and does not have any special storage requirements. However, it should be protected from moisture and heat.

## RECOMMENDED DOSAGE

The typical dosage range is 0.05% to 0.30%.

## PACKAGING

The product is packaged in paper bags lined with plastic bags, or in cardboard boxes lined with plastic bags. The net weight per package is 25 kg.



# YFK-SL-9200 series (PS)

## DETAILS

**Ingredients:** Phenolic antioxidants, phosphate antioxidants and other functional additives in a certain proportion, mixed and granulated by a special process.

## SPECIFICATIONS

**Appearance:** White or light yellow columnar particles
**Volatile Loss %:** ≤ 3.0
**Particle Size (mm):** 2.0 ~ 3.0

## PROPERTIES

It has stable properties and is supplied as white or light-yellow columnar particles. Compound powder forms can also be produced according to customer requirements.

## PERFORMANCE

It is a high-performance additive that provides outstanding processing stability and long-term protection for polystyrene products. It significantly reduces dust generation during processing, minimizing operator exposure and improving workplace safety.

## APPLICATIONS

It is a high-performance additive for polystyrene products, providing excellent processing stability and good light stability. Only a small dosage is required during processing.

## STORAGE

This product is stable under normal conditions and does not have any special storage requirements. However, it should be protected from moisture and heat.

## RECOMMENDED DOSAGE

The typical dosage range is 0.05% to 0.30%.

## PACKAGING

The product is packaged in paper bags lined with plastic bags, or in cardboard boxes lined with plastic bags. The net weight per package is 25 kg.

# YFK-SL-9400 series (PA)

## DETAILS

**Ingredients:** It is made up of phenolic antioxidants, phosphite antioxidants and other functional additives in a certain proportion, mixed and granulated by a special process.

## SPECIFICATIONS

**Appearance:** White or light yellow columnar particles
**Volatile Loss %:** ≤ 3.0
**Stacking density (g/cm$^3$):** 2.0 ~ 3.0

## PROPERTIES

It has stable properties and is supplied as white or light-yellow columnar particles. Compound powder forms can also be produced according to customer requirements.

## PERFORMANCE

It is a high-performance additive that provides outstanding processing stability and long-term protection for polyamide products. It significantly reduces dust generation during processing, minimizing operator exposure and improving workplace safety.

## APPLICATIONS

It is a high-performance additive for polyamide products, providing excellent processing stability and good light stability. Only a small dosage is required during processing.

## STORAGE

This product is stable under normal conditions and does not have any special storage requirements. However, it should be protected from moisture and heat.

## RECOMMENDED DOSAGE

The typical dosage range is 0.05%  to 0.30%.

## PACKAGING

The product is packaged in paper bags lined with plastic bags, or in cardboard boxes lined with plastic bags. The net weight per package is 25 kg.



# YFK-SL-9500 series (POM)

## DETAILS

**Ingredients:** Phenolic antioxidants, phosphite antioxidants and other functional additives in a certain proportion, mixed and granulated by a special process.

## SPECIFICATIONS

**Appearance:** White or light yellow columnar particles
**Volatile Loss %:** ≤ 3.0
**Particle Size (mm):** 2.0 ~ 3.0

## PROPERTIES

It has stable properties and is supplied as white or light-yellow columnar particles. Compound powder forms can also be produced according to customer requirements.

## PERFORMANCE

It is a high-performance additive that provides outstanding processing stability and long-term protection for POM products. It significantly reduces dust generation during processing, minimizing operator exposure and improving workplace safety.

## APPLICATIONS

It is a high-performance additive for POM products, providing excellent processing stability and good light stability. Only a small dosage is required during processing.

## STORAGE

This product is stable under normal conditions and does not have any special storage requirements. However, it should be protected from moisture and heat.

## RECOMMENDED DOSAGE

The typical dosage range is 0.05% to 0.30%.

## PACKAGING

The product is packaged in paper bags lined with plastic bags, or in cardboard boxes lined with plastic bags. The net weight per package is 25 kg.

## YFK-SL-9600 series (PVC)

### DETAILS
**Ingredients:** Phenolic antioxidants, phosphite antioxidants and other functional additives in a certain proportion, mixed and granulated by a special process.

### SPECIFICATIONS
**Appearance:** White or light yellow columnar particles
**Volatile Loss %:** ≤ 3.0
**Particle Size (mm):** 2.0 ~ 3.0

### PROPERTIES
It has stable properties and is supplied as white or light-yellow columnar particles. Compound powder forms can also be produced according to customer requirements.

### PERFORMANCE
It is a high-performance additive that provides outstanding processing stability and long-term protection for PVC products. It significantly reduces dust generation during processing, minimizing operator exposure and improving workplace safety.

### APPLICATIONS
It is a high-performance additive for PVC products, providing excellent processing stability and good light stability. Only a small dosage is required during processing.

### STORAGE
This product is stable under normal conditions and does not have any special storage requirements. However, it should be protected from moisture and heat.

### RECOMMENDED DOSAGE
The typical dosage range is 0.05% to 0.30%.

### PACKAGING
The product is packaged in paper bags lined with plastic bags, or in cardboard boxes lined with plastic bags. The net weight per package is 25 kg.

## YFK-SL-9700 (PU)

*PP pipe grade*

### DETAILS
**Ingredients:** It is made of phenolic antioxidants, phosphite antioxidants and other functional additives in a certain proportion, mixed and granulated by a special process.

### SPECIFICATIONS
**Appearance:** White or light yellow columnar particles
**Volatile Loss %:** ≤ 3.0
**Particle Size (mm):** 2.0 ~ 3.0

### PROPERTIES
It has stable properties and is supplied as white or light-yellow columnar particles. Compound powder forms can also be produced according to customer requirements.

### PERFORMANCE
It is a high-performance additive that provides outstanding processing stability and long-term protection for polyurethane products. It significantly reduces dust generation during processing, minimizing operator exposure and improving workplace safety.

### APPLICATIONS
It is a high-performance additive for polyurethane products, providing excellent processing stability and good light stability. Only a small dosage is required during processing.

### STORAGE
This product is stable under normal conditions and does not have any special storage requirements. However, it should be protected from moisture and heat.

### RECOMMENDED DOSAGE
The typical dosage range is 0.05% to 0.30%.

### PACKAGING
The product is packaged in paper bags lined with plastic bags, or in cardboard boxes lined with plastic bags. The net weight per package is 25 kg.

# YFK-SL-9800 (PET)

## DETAILS

**Ingredients:** Phenolic antioxidants, phosphite antioxidants and other functional additives in a certain proportion, mixed and granulated by a special process.

## SPECIFICATIONS

**Appearance:** White or light yellow columnar particles
**Volatile Loss %:** ≤ 3.0
**Stacking density (g/cm$^3$):** 2.0 ~ 3.0

## PROPERTIES

It has stable properties and is supplied as white or light-yellow columnar particles. Compound powder forms can also be produced according to customer requirements.

## PERFORMANCE

It is a high-performance additive that provides outstanding processing stability and long-term protection for PET products. It significantly reduces dust generation during processing, minimizing operator exposure and improving workplace safety.

## APPLICATIONS

It is a high-performance additive for PET products, providing excellent processing stability and good light stability. Only a small dosage is required during processing.

## STORAGE

This product is stable under normal conditions and does not have any special storage requirements. However, it should be protected from moisture and heat.

## RECOMMENDED DOSAGE

The typical dosage range is 0.05% to 0.30%.

## PACKAGING

The product is packaged in paper bags lined with plastic bags, or in cardboard boxes lined with plastic bags. The net weight per package is 25 kg.



# YFK-SL-9900 series (PMMA)

## DETAILS

**Ingredients:** Phenolic antioxidants, phosphite antioxidants and other functional additives in a certain proportion, mixed and granulated by a special process.

## SPECIFICATIONS

**Appearance:** White or light yellow columnar particles
**Volatile Loss %:** ≤ 3.0
**Particle Size (mm):** 2.0 ~ 3.0

## PROPERTIES

It has stable properties and is supplied as white or light-yellow columnar particles. Compound powder forms can also be produced according to customer requirements

## PERFORMANCE

It is a high-performance additive that provides outstanding processing stability and long-term protection for PMMA products. It significantly reduces dust generation during processing, minimizing operator exposure and improving workplace safety.

## APPLICATIONS

It is a high-performance additive for PMMA products, providing excellent processing stability and good light stability. Only a small dosage is required during processing.

## STORAGE

This product is stable under normal conditions and does not have any special storage requirements. However, it should be protected from moisture and heat.

## RECOMMENDED DOSAGE

The typical dosage range is 0.05% to 0.30%.

## PACKAGING

The product is packaged in paper bags lined with plastic bags, or in cardboard boxes lined with plastic bags. The net weight per package is 25 kg.

# YFK-XJ-9100 series (Nitrile rubber)



### DETAILS

**Ingredients:** It is made up of phenolic antioxidants, phosphite antioxidants and other functional additives in a certain proportion, mixed and granulated by a special process.

### SPECIFICATIONS

**Appearance:** White or light yellow columnar particles
**Volatile Loss %:** ≤ 3.0
**Particle Size (mm):** 2.0 ~ 3.0

### PROPERTIES

It has stable properties and is supplied as white or light-yellow columnar particles. Compound powder forms can also be produced according to customer requirements.

### PERFORMANCE

It is a high-performance additive that provides outstanding processing stability and long-term protection for nitrile rubber products. It significantly reduces dust generation during processing, minimizing operator exposure and improving workplace safety.

### APPLICATIONS

It is a high-performance additive for nitrile rubber products, providing excellent processing stability and good light stability. Only a small dosage is required during processing.

### STORAGE

This product is stable under normal conditions and does not have any special storage requirements. However, it should be protected from moisture and heat.

### RECOMMENDED DOSAGE

The typical dosage range is 0.05% to 0.30%.

### PACKAGING

The product is packaged in paper bags lined with plastic bags, or in cardboard boxes lined with plastic bags. The net weight per package is 25 kg.

# YFK-XJ-9200 series (Styrene butadiene rubber)



### DETAILS

**Ingredients:** It is made up of phenolic antioxidants, phosphite antioxidants and other functional additives in a certain proportion, mixed and granulated by a special process.

### SPECIFICATIONS

**Appearance:** White or light yellow columnar particles
**Volatile Loss %:** ≤ 3.0
**Particle Size (mm):** 2.0 ~ 3.0

### PROPERTIES

It has stable properties and is supplied as white or light-yellow columnar particles. Compound powder forms can also be produced according to customer requirements.

### PERFORMANCE

It is a high-performance additive that provides outstanding processing stability and long-term protection for styrene-butadiene rubber (SBR) products. It significantly reduces dust generation during processing, minimizing operator exposure and improving workplace safety.

### APPLICATIONS

It is a high-performance additive for styrene-butadiene rubber (SBR) products, providing excellent processing stability and good light stability. Only a small dosage is required during processing.

### STORAGE

This product is stable under normal conditions and does not have any special storage requirements. However, it should be protected from moisture and heat.

### RECOMMENDED DOSAGE

The typical dosage range is 0.05% to 0.30%.

### PACKAGING

The product is packaged in paper bags lined with plastic bags, or in cardboard boxes lined with plastic bags. The net weight per package is 25 kg.

# YFK-XJ-9300 series (Butadiene rubber)



### DETAILS

**Ingredients:** Phenolic antioxidants, phosphite antioxidants and other functional additives in a certain proportion, mixed and granulated by a special process.

### SPECIFICATIONS

**Appearance:** White or light yellow columnar particles
**Volatile Loss %:** ≤ 3.0
**Stacking density (g/cm$^3$):** 2.0 ~ 3.0

### PROPERTIES

It has stable properties and is supplied as white or light-yellow columnar particles. Compound powder forms can also be produced according to customer requirements.

### PERFORMANCE

It is a high-performance additive that provides outstanding processing stability and long-term protection for butadiene rubber (BR) products. It significantly reduces dust generation during processing, minimizing operator exposure and improving workplace safety.

### APPLICATIONS

It is a high-performance additive for butadiene rubber (BR) products, providing excellent processing stability and good light stability. Only a small dosage is required during processing.

### STORAGE

This product is stable under normal conditions and does not have any special storage requirements. However, it should be protected from moisture and heat.

### RECOMMENDED DOSAGE

The typical dosage range is 0.05% to 0.30%.

### PACKAGING

The product is packaged in paper bags lined with plastic bags, or in cardboard boxes lined with plastic bags. The net weight per package is 25 kg.

# YFK-XJ-9400 series (Isoprene rubber)



### DETAILS

**Ingredients:** Phenolic antioxidants, phosphite antioxidants and other functional additives in a certain proportion, mixed and granulated by a special process.

### SPECIFICATIONS

**Appearance:** White or light yellow columnar particles
**Volatile Loss %:** ≤ 3.0
**Particle Size (mm):** 2.0 ~ 3.0

### PROPERTIES

It has stable properties and is supplied as white or light-yellow columnar particles. Compound powder forms can also be produced according to customer requirements.

### PERFORMANCE

It is a high-performance additive that provides outstanding processing stability and long-term protection for isoprene rubber (IR) products. It significantly reduces dust generation during processing, minimizing operator exposure and improving workplace safety.

### APPLICATIONS

It is a high-performance additive for isoprene rubber (IR) products, providing excellent processing stability and good light stability. Only a small dosage is required during processing.

### STORAGE

This product is stable under normal conditions and does not have any special storage requirements. However, it should be protected from moisture and heat.

### RECOMMENDED DOSAGE

The typical dosage range is 0.05% to 0.30%.

### PACKAGING

The product is packaged in paper bags lined with plastic bags, or in cardboard boxes lined with plastic bags. The net weight per package is 25 kg.

# YFK-XJ-9500 series (Neoprene)

## DETAILS

**Ingredients:** Phenolic antioxidants, phosphite antioxidants and other functional additives in a certain proportion, mixed and granulated by a special process.

## SPECIFICATIONS

**Appearance:** White or light yellow columnar particles
**Volatile Loss %:** ≤ 3.0
**Particle Size (mm):** 2.0 ~ 3.0

## PROPERTIES

It has stable properties and is supplied as white or light-yellow columnar particles. Compound powder forms can also be produced according to customer requirements.

## PERFORMANCE

It is a high-performance additive that provides outstanding processing stability and long-term protection for neoprene (CR) products. It significantly reduces dust generation during processing, minimizing operator exposure and improving workplace safety.

## APPLICATIONS

It is a high-performance additive for neoprene (CR) products, providing excellent processing stability and good light stability. Only a small dosage is required during processing.

## STORAGE

This product is stable under normal conditions and does not have any special storage requirements. However, it should be protected from moisture and heat.

## RECOMMENDED DOSAGE

The typical dosage range is 0.05% to 0.30%.

## PACKAGING

The product is packaged in paper bags lined with plastic bags, or in cardboard boxes lined with plastic bags. The net weight per package is 25 kg.



# YFK-XJ-9600 (Fluoro rubber)

## DETAILS

**Ingredients:** Phenolic antioxidants, phosphite antioxidants and other functional additives in a certain proportion, mixed and granulated by a special process.

## SPECIFICATIONS

**Appearance:** White or light yellow columnar particles
**Volatile Loss %:** ≤ 3.0
**Particle Size (mm):** 2.0 ~ 3.0

## PROPERTIES

It is supplied as white or light-yellow columnar particles with stable properties. Compound powder forms can also be produced according to customer requirements.

## PERFORMANCE

It is a high-performance additive that provides outstanding processing stability and long-term protection for fluoro rubber (FKM) products. It significantly reduces dust generation during processing, thereby minimizing operator exposure and improving workplace safety.

## APPLICATIONS

It is a high-performance additive for fluoro rubber (FKM) products, providing excellent processing stability, good light stability, and superior anti-oxidation performance. Only a small dosage is required during processing.

## STORAGE

This product is stable under normal conditions and does not have any special storage requirements. However, it should be protected from moisture and heat.

## RECOMMENDED DOSAGE

The typical dosage range is 0.05% to 0.30%.

## PACKAGING

The product is packaged in paper bags lined with plastic bags, or in cardboard boxes lined with plastic bags. The net weight per package is 25 kg.

# CATALYSTS & CO-CATALYSTS

# PP Polymerization Catalysts

CATALYSTS & CO-CATALYSTS

## FGP-2000 series (PP spherical catalyst)

### FGP-2025

**PROPERTIES**
It features a narrow particle size distribution with controllable and adjustable sizes. It offers high polymerization activity, excellent isotactic orientation, and adjustable syndiotactic index. It performs well in copolymerization, enabling the production of high-rubber-content impact-resistant copolymers. Additionally, it has good hydrogenation sensitivity, optimal particle morphology, and minimal fine powder.

**APPLICATIONS**
It is suitable for Novolen, Innovene, and SPG processes, and can be used to produce homopolymers, impact-resistant copolymers, binary and ternary random copolymers, and other products.

**PACKAGING**
The product is packaged in galvanized steel drums. Height: 880 mm, Outer diameter: φ 565 mm, Net weight: ≤ 80 kg.

| PRODUCT | ITEM | UNIT | SPECIFICATION |
|---|---|---|---|
| Catalyst | Appearance | / | light gray-yellow powder |
| | Particle Size Distribution (V, 0.5) | μm | 16 ~ 30 |
| | Titanium Content (Mass Fraction) | % | 1.5 ~ 3.0 |
| | Ester Content (Mass Fraction) | % | 8.0 ~15.0 |
| | Activity (g Polyethylene /g Catalyst) | / | ≥ $5.2\times10^4$ |
| Polymer | Isotactic Index (Mass Fraction) | % | ≥ 97.0 |
| | Bulk Density | $g/cm^3$ | ≥ 0.45 |

## FGP-2000 series (PP spherical catalyst)

### FGP-2040

**PROPERTIES**
It features a narrow particle size distribution with controllable and adjustable sizes. It offers high polymerization activity, excellent isotactic orientation, and adjustable syndiotactic index. It performs well in copolymerization, enabling the production of high-rubber-content impact-resistant copolymers. Additionally, it has good hydrogenation sensitivity, optimal particle morphology, and minimal fine powder.

**APPLICATIONS**
It is suitable for Novolen, Innovene, and SPG processes, and can be used to produce homopolymers, impact-resistant copolymers, binary and ternary random copolymers, and other products.

**PACKAGING**
The product is packaged in galvanized steel drums. Height: 880 mm, Outer diameter: φ 565 mm, Net weight: ≤ 80 kg.

| PRODUCT | ITEM | UNIT | SPECIFICATION |
|---|---|---|---|
| Catalyst | Appearance | / | light gray-yellow powder |
| | Particle Size Distribution (V, 0.5) | μm | 30 ~ 50 |
| | Titanium Content (Mass Fraction) | % | 2.0 ~ 3.5 |
| | Ester Content (Mass Fraction) | % | 8.0 ~15.0 |
| | Activity (g Polyethylene /g Catalyst) | / | ≥ $5.2\times10^4$ |
| Polymer | Isotactic Index (Mass Fraction) | % | ≥ 97.0 |
| | Bulk Density | $g/cm^3$ | ≥ 0.47 |

## FGP-2000 series (PP spherical catalyst)

### FGP-2060

**PROPERTIES**
It features a narrow particle size distribution with controllable and adjustable sizes. It offers high polymerization activity, excellent isotactic orientation, and adjustable syndiotactic index. It performs well in copolymerization, enabling the production of high-rubber-content impact-resistant copolymers. Additionally, it has good hydrogenation sensitivity, optimal particle morphology, and minimal fine powder.

**APPLICATIONS**
It is applicable to single-ring tube, double-ring tube, and ring-tube gas-phase processes, and can be used to produce homopolymers, impact-resistant copolymers, binary and ternary random copolymers, and other products.

**PACKAGING**
The product is packaged in galvanized steel drums. Height: 880 mm, Outer diameter: φ 565 mm, Net weight: ≤ 80 kg.

| PRODUCT | ITEM | UNIT | SPECIFICATION |
|---|---|---|---|
| Catalyst | Appearance | / | light gray-yellow powder |
| | Particle Size Distribution (V, 0.5) | μm | 45 ~ 65 |
| | Titanium Content (Mass Fraction) | % | 2.0 ~ 3.5 |
| | Ester Content (Mass Fraction) | % | 8.0 ~ 15.0 |
| | Activity (g Polyethylene /g Catalyst) | / | ≥ $5.2\times10^4$ |
| Polymer | Isotactic Index (Mass Fraction) | % | ≥ 97.0 |
| | Bulk Density | $g/cm^3$ | ≥ 0.46 |

## FGP-2000 series (PP spherical catalyst)

### FGP-2070

**PROPERTIES**
It features a narrow particle size distribution with controllable and adjustable sizes. It offers high polymerization activity, excellent isotactic orientation, and adjustable syndiotactic index. It performs well in copolymerization, enabling the production of high-rubber-content impact-resistant copolymers. Additionally, it has good hydrogenation sensitivity, optimal particle morphology, and minimal fine powder.

**APPLICATIONS**
It is suitable for Spherizone processes, and can be used to produce homopolymers, impact-resistant copolymers, binary and ternary random copolymers, and other products.

**PACKAGING**
The product is packaged in galvanized steel drums. Height: 880 mm, Outer diameter: φ 565 mm, Net weight: ≤ 80 kg.

| PRODUCT | ITEM | UNIT | SPECIFICATION |
|---|---|---|---|
| Catalyst | Appearance | / | light gray-yellow powder |
| | Particle Size Distribution (V, 0.5) | μm | 55 ~ 75 |
| | Titanium Content (Mass Fraction) | % | 2.0 ~ 3.5 |
| | Ester Content (Mass Fraction) | % | 8.0 ~ 15.0 |
| | Activity (g Polyethylene /g Catalyst) | / | ≥ $5.2\times10^4$ |
| Polymer | Isotactic Index (Mass Fraction) | % | ≥ 97.0 |
| | Bulk Density | $g/cm^3$ | ≥ 0.46 |

## FGP-2000-H series (PP high hydrogen response spherical catalyst)

### FGP-2025-HZ

**PROPERTIES**
It exhibits high polymerization activity, narrow particle size distribution, in controllable and adjustable particle sizes. It has excellent hydrogenation sensitivity, high isotactic orientation ability, and an adjustable syndiotactic index. It also offers good copolymerization performance, optimal polymer particle morphology, minimal fine powder, low odor, and low VOC emissions. Especially suitable for high melt index and high rigidity products, it can maintain isotacticity without the need for external electron donors. It is characterized by independence from alkylaluminum and maintains reaction activity at low alkylaluminum concentrations, making it ideal for producing low-ash resin products.

**APPLICATIONS**
It is suitable for Novolen, Innovene, and SPG processes, and can be used to produce homopolymers, impact-resistant copolymers, binary and ternary random copolymers, and other products.

**PACKAGING**
The product is packaged in galvanized steel drums. Height: 880 mm, Outer diameter: φ 565 mm, Net weight: ≤ 80 kg.

| PRODUCT | ITEM | UNIT | SPECIFICATION |
|---|---|---|---|
| Catalyst | Appearance | / | earth brown powder |
| | Particle Size Distribution (V, 0.5) | μm | 16 ~ 35 |
| | Titanium Content (Mass Fraction) | % | 1.5 ~ 3.0 |
| | Activity (g Polyethylene /g Catalyst) | / | ≥ $7.0\times10^4$ |
| Polymer | Isotactic Index (Mass Fraction) | % | ≥ 97.0 |
| | Bulk Density | g/cm$^3$ | ≥ 0.42 |

## FGP-2000-H series (PP high hydrogen response spherical catalyst)

### FGP-2040-HS

**PROPERTIES**
It exhibits high polymerization activity, narrow particle size distribution, in controllable and adjustable particle sizes. It has excellent hydrogenation sensitivity, high isotactic orientation ability, and an adjustable syndiotactic index. It also offers good copolymerization performance, optimal polymer particle morphology, minimal fine powder, low odor, and low VOC emissions. Especially suitable for high melt index and high rigidity products, it can maintain isotacticity without the need for external electron donors. It is characterized by independence from alkylaluminum and maintains reaction activity at low alkylaluminum concentrations, making it ideal for producing low-ash resin products.

**APPLICATIONS**
It is suitable for single-ring tube, double-ring tube, and ring-tube gas-phase processes, and can be used to produce homopolymers, impact-resistant copolymers, binary and ternary random copolymers, and other products.

**PACKAGING**
The product is packaged in galvanized steel drums. Height: 880 mm, Outer diameter: φ 565 mm, Net weight: ≤ 80 kg.

| PRODUCT | ITEM | UNIT | SPECIFICATION |
|---|---|---|---|
| Catalyst | Appearance | / | earth brown powder |
| | Particle Size Distribution (V, 0.5) | μm | 30 ~ 50 |
| | Titanium Content (Mass Fraction) | % | 2.0 ~ 3.5 |
| | Activity (g Polyethylene /g Catalyst) | / | ≥ $7.0\times10^4$ |
| Polymer | Isotactic Index (Mass Fraction) | % | ≥ 97.0 |
| | Bulk Density | g/cm$^3$ | ≥ 0.42 |

# PE Polymerization Catalysts

CATALYSTS & CO-CATALYSTS

## FGE-3000 series (PE granular catalyst)

### FGE-3005

**PROPERTIES**
It has high activity, good hydrogen regulation sensitivity, and excellent copolymerization performance. The polymer exhibits high bulk density, good chlorination effect, and a very narrow particle size distribution, with few coarse particles and fine powders.

**APPLICATIONS**
It is suitable for the Mitsui Petrochemical slurry process.

**PACKAGING**
The product is packaged in galvanized steel drums. Height: 880 mm, Outer diameter: φ 565 mm, Net weight: ≤ 50 kg.

| PRODUCT | ITEM | UNIT | SPECIFICATION | |
|---|---|---|---|---|
| Catalyst | Appearance | / | Light yellow powder | Light yellow slurry |
| | Particle Size Distribution (V, 0.5) | μm | 3.0 ~ 6.5 | 3.0 ~ 6.5 |
| | Titanium Content (Mass Fraction) | % | 3.5 ~ 6.5 | 4.0 ~ 6.5 |
| | Activity (G Polyethylene /G Catalyst) | / | ≥ $2.0\times10^4$ | ≥ $2.0\times10^4$ |
| Polymer | Bulk Density | $g/cm^3$ | ≥ 0.30 | ≥ 0.31 |

## FGE-3000 series (PE granular catalyst)

### FGE-3007

**PROPERTIES**
It has high activity, good hydrogen regulation sensitivity, and excellent copolymerization performance. The polymer exhibits high bulk density, good chlorination effect, and a very narrow particle size distribution, with few coarse particles and fine powders.

**APPLICATIONS**
It is suitable for slurry process high-density polyethylene (HDPE) production using the Hostalen and Hostalen ACP technologies.

**PACKAGING**
The product is packaged in galvanized steel drums. Height: 880 mm, Outer diameter: φ 565 mm, Net weight: ≤ 50 kg.

| PRODUCT | ITEM | UNIT | SPECIFICATION | |
|---|---|---|---|---|
| Catalyst | Appearance | / | Light yellow powder | Light yellow slurry |
| | Particle Size Distribution (V, 0.5) | μm | 6.0 ~ 10.0 | 6.0 ~ 10.0 |
| | Titanium Content (Mass Fraction) | % | 3.5 ~ 6.5 | 4.0 ~ 6.5 |
| | Activity (G Polyethylene /G Catalyst) | / | ≥ $2.0\times10^4$ | ≥ $2.0\times10^4$ |
| Polymer | Bulk Density | $g/cm^3$ | ≥ 0.32 | ≥ 0.33 |

## FGE-3000 series (PE granular catalyst)

### FGE-3010

**PROPERTIES**
It has high activity, good hydrogen regulation sensitivity, and excellent copolymerization performance. The polymer exhibits high bulk density, good chlorination effect, and a very narrow particle size distribution, with few coarse particles and fine powders.

**APPLICATIONS**
It is suitable for slurry process high-density polyethylene (HDPE) production using the Innovene S technology.

**PACKAGING**
The product is packaged in galvanized steel drums. Height: 880 mm, Outer diameter: φ 565 mm, Net weight: ≤ 50 kg.

| PRODUCT | ITEM | UNIT | SPECIFICATION | |
|---|---|---|---|---|
| Catalyst | Appearance | / | Light yellow powder | Light yellow slurry |
| | Particle Size Distribution (V, 0.5) | μm | 8.0 ~ 12.0 | 8.0 ~ 12.0 |
| | Titanium Content (Mass Fraction) | % | 3.5 ~ 6.5 | 4.0 ~ 6.5 |
| | Activity (G Polyethylene /G Catalyst) | / | ≥ $2.0 \times 10^4$ | ≥ $2.0 \times 10^4$ |
| Polymer | Bulk Density | $g/cm^3$ | ≥ 0.30 | ≥ 0.31 |

## FGE-3005U (UHMWE PE catalyst)

**PROPERTIES**
It features a small average particle size with adjustable particle size distribution and excellent molecular weight control. It exhibits high polymer bulk density, low oligomer content, and superior mechanical properties. The polymer particles have good morphology and a narrow size distribution.

**APPLICATIONS**
It is suitable for slurry process technology and can be used in the production of bulletproof vests, artificial joints, and fishing net fibers.

**PACKAGING**
The product is packaged in galvanized steel drums. Height: 880 mm, Outer diameter: φ 565 mm, Net weight: ≤ 50 kg.

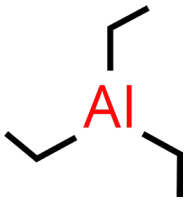
| PRODUCT | ITEM | UNIT | SPECIFICATION | |
|---|---|---|---|---|
| Catalyst | Appearance | / | Light yellow powder | Light yellow slurry |
| | Particle Size Distribution (V, 0.5) | μm | 3.0 ~ 6.5 | 3.0 ~ 6.5 |
| | Titanium Content (Mass Fraction) | % | 3.5 ~ 6.5 | 4.0 ~ 6.5 |
| | Activity (G Polyethylene /G Catalyst) | / | ≥ $1.5 \times 10^4$ | ≥ $1.5 \times 10^4$ |
| Polymer | Bulk Density | $g/cm^3$ | ≥ 0.31 | ≥ 0.32 |

# TEAL Co-Catalysts

# Triethyl Aluminium (TEAL)

## Triethyl Aluminium

**Chemical Formula:** $C_6H_{15}Al$
**Cas No.:** 97-93-8
**Molecular Weight:** 114.16




**APPLICATIONS**

It is a high-performance activator that reacts with titanous chloride to form a Ziegler–Natta catalyst for propylene polymerization, and with titanium tetrachloride to generate Ziegler catalysts for the low-pressure polymerization of ethylene, propylene, and isoprene. This product also serves as a catalyst for synthetic rubber and organic synthesis, functioning as a key co-catalyst component in Ziegler–Natta catalyst systems.

| ITEM | TEAL-1 | TEAL-2 |
|---|---|---|
| **Appearance** | Colorless transparent liquid | Colorless transparent liquid |
| **Content of Total Aluminium (%)** | ≥ 23.0 | ≥ 23.0 |
| **Content of Triethy! Aluminium (%)** | ≥ 94.0 | ≥ 95.0 |
| **Content of Tri-N- Butylaluminium (%)** | ≤ 6.0 | ≤ 4.0 |
| **Content of Triisobutylaluminium (%)** | ≤ 0.5 | ≤ 0.1 |
| **Content of Aluminium Chloride Hexahydrate (%)** | ≤ 1.0 | ≤ 0.1 |
| **Content of Tripropyl Aluminium (%)** | Trace amount | Trace amount |

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## WE ARE HERE TO HELP

Reach out to us for product inquiries, technical support, or partnership opportunities.

## CONTACT DETAILS:

Website: **https://ln-fengguang.com/**
Headquarters: Yingkou, China.
Subsidiaries: Basel, Switzerland, and Dubai, UAE.
Emails:
***China:*** *168@ln-fengguang.com*
***Europe:*** *europe.sales@fengguangint.com*
***Middle East / Africa:*** *middleeast.sales@fengguangint.com*
***Americas:*** *americas.sales@fengguangint.com*