



Gaochun District of Nanjing is the national famous ecotype in China. It is the place where the first international cittaslow was located in China. The quality of air ranks first in Jiangsu province. Nanjing Zhongchao New Materials Co., Limited locates in Dongba town of Gaochun district which is one of the 'Hundreds of Famous Town'. The east is Liyang, Yixing, and the west is Wuhu. The Wutai Highway and Wushen canal passes through the town as well as Ningxuan and Wuli express way are close to it. The transportation is very convenient. Being neighbor from the beauty spot of Mountain Youzhi and Wujia -zhui ecological garden makes company have the beautiful and comfortable environment.

The total amount of investment of company is nearly 200 million Yuan, the first phase of project cover the area of 70,000 square meters and has 30 million RMS of the registered capital. The deigned productive capacity is almost 2 billion Yuan. Main products are as below:

- Up to and including 35kV peroxide cross-linked polyethylene insulation material.
- Up to and including 10kV silane cross-linked polyethylene insulation materials.
- Up to and including 35kV cross-linked cable with semiconducting shielding material.
- Low smoke halogen-free flame retardant polyolefin cable material.
- Ordinary, environmentally friendly PVC cable material.





High temperature resistant, low temperature resistance, corrosion resistance of oil and other special cable material.

The corporation owns a high-quality professional R&D team as well as testing center equipped with complete facility. It satisfies client's customized needs of products as much as possible. The corporation is committed to research and development of the products of new material based on environment management system ISO14001-2004, quality management system ISO9001-2008, professional healthy security management OHSAS18001-2007 authorized by international relevant authorities. The mission of corporation is to localize the production of high-end cable material. The corporation always adheres to the principle of "Low Consumption, High Productivity, Creating Profit for Clients".

We are striving to be the largest domestic and high quality cable supplier capitalizing on our complete production line.

As the goal to "Green business innovation, Boost development of industry", the corporation will create tremendous value for client and contribute to the development of industry through continuous effort with the enterprise spirit of "Innovation, Green, Promoting and Win-Win".





Peroxide cross-linked polyethylene insulation compound (10kV)

PRODUCT CODE :3101

Product standard: JB/T 10437-2004

This product is a kind of cross-linkable polyethylene insulation plastic particles. It is produced by plasticizing granulation using clean and high quality polyethylene resin, cross-linking agent and antioxidant in a closed system. Loss-in-weight Feeders which guarantees stable precision of components. The process is simple with stable and reliable physical and chemical indexes, excellent processing and insulation performance.

Application: Maximum working temperature 90 °C:10kV cross-linked cable insulation compound.

Property:

Item	Unit	Test method	Typical value
Density@23°C	g/cm³	ASTM D792	0.92±0.01
Tensile strength	MPa	IEC60811-1-1	23.0
Elongation at break	%	IEC60811-1-1	540
(Impact embrittlement performance @-76℃) Failure number	Piece	ASTM D746	0/30
(After aging@135℃, 168h) Tensile strength variation Breaking elongation variation	% %	IEC 60811-1-2	+7 + 1
(Hot prolongation@200°C, 0.2MPa, 15min) Elongation under the load Permanent deformation	% %	IEC 60811-2-1	60 0
Dielectric dissipation factor@20°C,50HZ	-	IEC 60250	1×10 ⁻⁴
Relative dielectric constant@20°C, 50HZ	-	IEC 60250	2.25
Dielectric strength@20°C	MV/m	IEC 60243-1	39
Volume resistivity@20°C	Ω •m	IEC 60093	8×10 ¹⁴
Gel content	%	ASTM D2765	87

Processing

Recommend to use conventional extruder (three layers co-extrusion, draw ratio is from 20:1 to 30:1). Other equipments need to be adjusted according to the circumstance.

Temperature Range	Feeding Section	Compression Section	Homogenization Section	Model Section
℃	95-100	105-110	110-115	115-120

⁻ Above temperature is only for reference.

Storage:

Store at room temperature; Storage environment should be clean, dry and ventilated; Best use within six months from the date of production.

Product packaging:

600 kg / net content product in each package; Inner lined with plastic sealed film bag; Corrugated carton, with tray at the bottom.

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Website:www.zcnewmaterials.com

⁻ Filter net should be inserted into extruder.

⁻ The powder is often produced during material insulation conveying process.



Peroxide cross-linked polyethylene insulation compound (35kV)

PEDDUCT CODE :3III

Product standard: JB/T 10437-2004

This product is a kind of cross-linkable polyethylene insulation plastic particles. It is produced by using clean polyethylene resin with high quality, cross-linking agent, antioxidant plasticizing granulation. Production process uses the closed system; Loss-in-weight Feeders which guarantees stable precision of components. The physical and chemical index is stable and reliable, processing and insulation performance are excellent, and the process is clean and stable.

Application: Maximum working temperature 90°C;35kV cross-linked cable insulation compound.

Property:

Item	Unit	Test method	Typical value
Density@23℃	g/cm³	ASTM D792	0.92±0.01
Tensile strength	MPa	IEC60811-1-1	22.5
Elongation at break	%	IEC60811-1-1	540
(Impact embrittlement performance @-76℃) Failure number	Piece	ASTM D746	0/30
(After aging @135°C, 168h) Tensile strength variation Breaking elongation variation	% %	IEC 60811-1-2	+7 + 1
(Hot prolongation@200°C, 0.2MPa, 15min) Elongation under the load Permanent deformation	% %	IEC 60811-2-1	60 0
Dielectric dissipation factor@20°C, 50HZ	1 1 == 1	IEC 60250	1×10 ⁻⁴
Relative dielectric constant@20°C, 50HZ		IEC 60250	2.25
Dielectric strength@20°C	MV/m	IEC 60243-1	40
Volume resistivity@20°C	Ω •m	IEC 60093	1×10 ¹⁵
Gel content	%	ASTM D2765	86

Impurity content

Impurities Particle Size	Number of particles C1	Number of particles C2
0.12~0.25	6	10
0.26~0.50	1	2
0.51~1.00	0	0
>1.00	0	0

Particles number C1 qualified. Between C1 and C2, re-inspection. Particles number C2, unqualified.

Processing

Recommend to use conventional extruder (three layers co-extrusion, draw ratio is from 20:1 to 30:1) and other equipment need to be adjusted according to the circumstance.

	Feeding Section	Compression Section	Homogenization Section	Model Section
Reference temperature range	90-100	100-110	105-115	110-120

- Above temperature is only for reference.
- Filter net should be inserted into extruder.
- The powder is often produced during material insulation conveying process, please clean equipment regularly.

Storage:

Store at room temperature; Storage environment should be clean, dry and ventilated.

Product packaging:

600 kg/net content product in each package; Inner lined with plastic sealed film bags; Corrugated carton, the bottom tray.

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Two-step silane cross-linked polyethylene insulation compound

Product standard: JB/T 10437-2004

PRODUCT CODE :3201

This product is a kind of warm water cross-linkable polyethylene insulation plastic particle. It is made from high quality polyethylene resin, silane coupling agent, initiator, antioxidant agent, and catalyst. There are two semi-products which are grafted polyethylene (part A) and catalyst master-batch (part B). Final product is processed with part A and part B in 95:5 proportion by steaming after extrusion cabling from 90 °C warm water bath cross-linking. It has excellent performance and its physical and chemical index is stable and reliable.

Application: Dedicated for middle, low voltage cross-linked wire and cable insulation, maximum working temperature is 90 °C;3kV and below cross-linked wire and cable.

Property:

Test item	Unit	Test method	Typical value
Density@23°C	g/cm³	ASTM D792	0.92±0.01
Tensile strength	MPa	IEC60811-1-1	18.0
Elongation at break	%	IEC60811-1-1	470
(Impact embrittlement performance @-76℃) Failure number	Piece	ASTM D746	0/30
(After aging@135°C,168h) Tensile strength variation Breaking elongation variation	% %	IEC 60811-1-2	+5 -6
(Hot prolongation@200°C, 0.2MPa, 15min) Elongation under the load Permanent deformation	% %	IEC 60811-2-1	60 -3
Dielectric dissipation factor@20°C, 50HZ	_	IEC 60250	2×10 ⁻⁴
Relative dielectric constant@20°C, 50HZ		IEC 60250	1.7
Dielectric strength@20°C	MV/m	IEC 60243-1	38
Volume resistivity@20°C	Ω •m	IEC 60093	1×10 ¹⁵
Gel content	%	ASTM D2765	65
*Melt flow index@190°C,2.16kg	g/10min	ASTM D1238	1.0

P.S.: * can be adjusted according to customers' requirements.

Processing

Recommend for polyethylene specific extruder. Draw ratio is from 18:1 to 25:1 and other equipment need to be adjusted according to the circumastance.

	Feeding Section	Compression Section	Homogenization Section	Model Section
Reference temperature range	150-170	170-185	180-190	190-200

⁻ Above temperature is only for reference.

Storage:

Keep at room temperature; Storage environment should be clean, dry and ventilated; Time limit for the storage is within six months from the date of production; Mix material A and B, please use it up in 8 hours; Material A should be used up within 24 hours after opened.

Product packaging:

25kg content product in each package, of which the grafted polyethylene (material A) is 23.75 kg/bag, catalytic mother material (material B) is 1.25 kg/bag;

Material A and B are expected to adopt the aluminum foil vacuum sealing, with composite paper bags outside.

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⁻ Customers can choose appropriate color master-batch accordingly, but need to be dry.



Two-step silane cross-linked polyethylene insulation compound (3kV) (Dedicated to small section)

PRODUCT CODE :3202

Product standard: JB/T 10437-2004

This product is a kind of warm water cross-linkable polyethylene insulation plastic particle. It is made from high quality polyethylene resin, silane coupling agent, initiator, antioxidant agent, and catalyst. There are two semi-products which are grafted polyethylene (part A) and catalyst master-batch (part B). Final product is processed with part A and part B in 95:5 proportion by steaming after extrusion cabling and cooled in 90 °C warm water bath cross-linking. It has high extrusion speed and high surface finish.

Application: Dedicated to conductor cross section (0.75 mm²) and above small specific wire and cable insulation, allowing maximum working tempera -ture is 90 °C; 10kV and below cross-linked wire and cable.

Property:

Item	Unit	Test method	Typical value
Density@23℃	g/cm³	ASTM D792	0.92±0.01
Tensile strength	MPa	IEC60811-1-1	18.0
Elongation at break	%	IEC60811-1-1	470
(Impact embrittlement performance @-76℃) Failure number	Piece	ASTM D746	0/30
(After aging@135°C,168h) Tensile strength variation Breaking elongation variation	% %	IEC 60811-1-2	+5 -6
(Hot prolongation@200°C, 0.2MPa, 15min) Elongation under the load Permanent deformation	% %	IEC 60811-2-1	60 -3
Dielectric dissipation factor@20°C, 50HZ	-	IEC 60250	2×10 ⁻⁴
Relative dielectric constant@20°C, 50HZ	-	IEC 60250	1.7
Dielectric strength@20°C	MV/m	IEC 60243-1	38
Volume resistivity@20°C	Ω •m	IEC 60093	1×10 ¹⁵
Gel content	%	ASTM D2765	65
*Melt flow index@190°C,2.16kg	g/10min	ASTM D1238	1.0

P.S.: * can be adjusted according to customers' requirements

Processing

Recommend for polyethylene specific extruder .Draw ratio is from 18:1 to 25:1, and other equipment need to be adjusted according to the circumstance.

	Feeding Section	Compression Section	Homogenization Section	Model Section
Reference temperature range	150-170	170-185	180-190	190-200

⁻ Above temperature is only for reference.

Storage:

Keep at room temperature; Storage environment should be clean, dry and ventilated; Time limit for the storage is within six months from the date of production; To use blend material A and B, please use up in 8 hours; Material A should be used up within 24 hours after opened.

Product packaging:

Each package content is 25kg, of which the grafted polyethylene (material A) is 23.75 kg/bag, catalytic mother material (material B) is 1.25 kg/bag;

Material A and B are packed respectively in aluminium foil vacuum seal, with composite paper bags outside.

⁻ Customers can choose appropriate color master-batch accordingly, but need to be dry.



Two-step silane cross-linked black polyethylene insulation compound (10kV)

PEDDUCT CODE :3211

Product standard: JB/T 10260 -2001

This product is a kind of warm water cross-linkable polyethylene insulation plastic particle. It is produced by using high quality polyethylene resin, adding silane coupling agent, initiator, antioxidant agent, and catalyst. There are two semi-products which are grafted polyethylene (part A) and catalyst master-batch (part B). Final product is processed with part A and part B in 95:5 proportion by steaming after extrusion cabling and cooled in 90 °C warm water bath cross-linking. It has excellent performance and its physical and chemical index is stable and reliable product.

Application: Applicable to 10kV and below overhead cable; Allowable working temperature is 90 °C.

Property:

Test item	Unit	Test method	Typical value
Density@23℃	g/cm³	ASTM D792	0.92±0.01
Tensile strength	MPa	IEC60811-1-1	18.5
Elongation at break	%	IEC60811-1-1	460
(Impact embrittlement performance @-76℃) Failure number	Piece	ASTM D746	0/30
(After aging@135°C,168h) Tensile strength variation Breaking elongation variation	% %	IEC 60811-1-2	+5 -6
(Hot prolongation@200°C, 0.2MPa, 15min) Elongation under the load Permanent deformation	% %	IEC 60811-2-1	50 -3
Dielectric dissipation factor@20℃, 50HZ	-	IEC 60250	2×10 ⁻⁴
Relative dielectric constant@20°C, 50HZ	-	IEC 60250	1.7
Dielectric strength@20°C	MV/m	IEC 60243-1	37
Volume resistivity@20°C	Ω •m	IEC 60093	6×10 ¹⁴
Environmental stress crack resistanceF ₅₀	hr	IEC811-4-1	Pass
*Melt flow index@190°C,2.16kg	g/10min	ASTM D1238	0.8
Artificial dimate aging resistance (after42 days) Tensile strength variation Breaking elongation variation	% %	GB/T14049	-19 -25
Artificial dimate aging resistance (after21 days) Tensile strength variation Breaking elongation variation	% %	GB/T14049	-9 -11

P.S.: * can be adjusted according to customers' requirements

Processing

Recommend for polyethylene specific extruder. Draw ratio is from 18:1 to 25:1 and other equipment need to be adjusted according to the circumstance.

	Feeding Section	Compression Section	Homogenization Section	Model Section
Reference temperature range	150-170	170-185	180-190	190-200

Above temperature is only for reference

Storage:

Keep at room temperature; Storage environment should be clean, dry and ventilated; Time limit for the storage is within six months from the date of production; To use blend material A and B, please use it up in 8 hours; Material A should be used up within 24 hours after opened.

Product packaging:

A package is 25kg/net; Material A and B are packaged respectively in aluminum foil vacuum seal, with composite paper bags outside.

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One-step silane cross-linked polyethylene insulation compound

PRODUCT CODE :3232

Product standard: JB/T 10437-2004

The product is a kind of plastic particles and adopts a special process, granulating by mixing up the matrix resins and a variety of accessories, with silane coupling agent as accessory ingredient making it fully adsorbent. Because of grafting reaction, it is not easy to pre cross-link and it has excellent extruding performance as well. During producing wire products, grafting reaction happens when it is extruded from extruder and then finished cross-linking after steaming and cooled with water bath of temperature 90 °C.

Application: Dedicated to middle, low voltage cross-linking wire and cable production, allowing maximum working temperature of 90 °C; Suitable for low voltage cross-linking wire and cable insulation (conductor cross section more than 10mm²).

Property:

Test item	Unit	Test method	Typical value
Density@23°C	g/cm³	ASTM D792	0.92±0.01
Tensile strength	MPa	IEC60811-1-1	20.0
Elongation at break	%	IEC60811-1-1	520
(Impact embrittlement performance @-76℃) Failure number	Piece	ASTM D746	0/30
(After aging@135°C,168h) Tensile strength variation Breaking elongation variation	% %	IEC 60811-1-2	+7 -6
(Hot prolongation@200°C, 0.2MPa, 15min) Elongation under the load Permanent deformation	% %	IEC 60811-2-1	60 0
Dielectric dissipation factor@20°C, 50HZ		IEC 60250	2×10 ⁻⁴
Relative dielectric constant@20°C, 50HZ		IEC 60250	1.7
Dielectric strength@20°C	MV/m	IEC 60243-1	38
Volume resistivity@20°C	Ω •m	IEC 60093	1×10 ¹⁵
Gel content	%	ASTM D2765	65

Processing

Recommend for polyethylene specific extruder. Draw ratio is from 18:1 to 25:1 and other equipment need to be adjusted according to the circumstance.

	Feeding Section	Compression Section	Homogenization Section	Model Section
Reference temperature range	160-180	180-200	200-210	210-220

⁻ Above temperature is only for reference.

Storage

Keep at room temperature; Storage environment should be clean, dry and ventilated; Time limit for the storage is within six months from the date of prod -uction; Please use up the mixture in 16 hours after bag is opened.

Product packaging:

Each package content is 25kg; Aluminum foil vacuum seal with composite paper bags outside.

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Website:www.zcnewmaterials.com

⁻Customers can choose appropriate color master-batch accordingly, but need to pre-dry.



One-step silane cross-linked polyethylene insulation compound (3kV) (Dedicate to small cross-section cable)

PRODUCT CODE: 9299

Product standard: JB/T 10437-2004

The product is a kind of plastic particles and adopts a special process, granulating by mixing up the matrix resins and a variety of accessories, with silane coupling agent as accessory ingredient making it fully adsorbent. Because of grafting reaction, it is not easy to pre cross-linking. It is designed for small cross-section cable production and the compound design leads to excellent performance and high surface finish. During producing wire products, grafting reaction happens when it is extruded from extruder and then finishes cross-linking after steaming and cooling water bath of temperature 90 °C.

Application: Dedicated to middle, low voltage cross-linked wire and cable production, allowing maximum working temperature is 90 °C. Suitable for low voltage cross-linked wire and cable insulation (conductor cross section between 1mm² and 16mm²).

Property:

Test item	Unit	Test method	Typical value
Density@23℃	g/cm³	ASTM D792	0.92±0.01
Tensile strength	MPa	IEC60811-1-1	20.0
Elongation at break	%	IEC60811-1-1	520
(Impact embrittlement performance @-76℃) Failure number	Piece	ASTM D746	0/30
(After aging@135°C,168h) Tensile strength variation Breaking elongation variation	% %	IEC 60811-1-2	+7 -6
(Hot prolongation@200°C, 0.2MPa, 15min) Elongation under the load Permanent deformation	% %	IEC 60811-2-1	60 0
Dielectric dissipation factor@20°C, 50HZ	=	IEC 60250	2×10⁴
Relative dielectric constant@20°C, 50HZ		IEC 60250	1.7
Dielectric strength@20°C	MV/m	IEC 60243-1	38
Volume resistivity@20°C	Ω •m	IEC 60093	1×10 ¹⁵
Gel content	%	ASTM D2765	65

Processing

Recommend for polyethylene specific extruder. Draw ratio is from 18:1 to 25:1, and other equipment need to be adjusted according to the circumstance.

	Feeding Section	Compression Section	Homogenization Section	Model Section
Reference temperature range	160-180	180-200	200-210	210-220

Above temperature is only for reference.

Storage:

Keep at room temperature; Storage environment should be clean, dry and ventilated; Time limit for the storage is within six months from the date of production; Please use up the mixture in 16 hours after bag is opened.

Product packaging:

Each package content is 25kg; Aluminum foil vacuum seal, with composite paper bags outside.

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⁻ Customers can choose appropriate color master-batch accordingly, but need to pre-dry.



One-step silane cross-linked black polyethylene insulation compound (10kV)

PRODUCT CODE: 3241

Product standard: JB/T 10260 -2001

This product is a kind of warm water cross-linkable polyethylene insulation plastic particle. It is processed by using high quality polyethylene resin, silane coupling agent, initiator, antioxidant agent, catalyst, weather resistance, master-batch and other additives. It is used with simple operation with excellent extruding performance and good weather aging resistance performance as well.

Application: Applicable for the production of overhead cable (10kV and below); Allowed working temperature is 90 °C.

Property:

Test item	Unit	Test method	Typical value
Density@23℃	g/cm³	ASTM D792	0.92±0.01
Tensile strength	MPa	IEC60811-1-1	18.5
Elongation at break	%	IEC60811-1-1	510
(Impact embrittlement performance @-76℃) Failure numbers	Piece	ASTM D746	0/30
(After aging @135°C,168h) Tensile strength variation Breaking elongation variation	% %	IEC 60811-1-2	+5 -6
(Hot prolongation@200°C, 0.2MPa, 15min) Elongation under the load Permanent deformation	% %	IEC 60811-2-1	50 -3
Dielectric dissipation factor@20°C, 50HZ	=	IEC 60250	2×10 ⁻⁴
Relative dielectric constant@20°C, 50HZ	-	IEC 60250	1.7
Dielectric strength@20°C	MV/m	IEC 60243-1	37
Volume resistivity@20°C	Ω •m	IEC 60093	5×10 ¹⁴
Environmental stress crack resistanceFso	hr	IEC811-4-1	pass
Artificial dimate aging resistance(after 42 days) Tensile strength variation Breaking elongation variation	% %	GB/T14049	-21 -23
Artificial dimate aging resistance(after 21 days) Tensile strength variation Breaking elongation variation	% %	GB/T14049	-8 -10

Processing

Recommend for polyethylene specific extruder. Draw ratio is from 18:1 to 25:1 and other equipment need to be adjusted according to the circumstance.

	Feeding Section	Compression Section	Homogenization Section	Model Section
Reference temperature range	160-180	180-200	180-190	190-200

⁻ Above temperature is only for reference.

Storage:

Keep at room temperature; Storage environment should be clean, dry and ventilated; Time limit for the storage is within six months from the date of prod -uction; Please use up in 16 hours after bag is opened.

Product packaging:

Each package content is 25kg; Aluminum foil vacuum seal, with composite paper bags outside.

Tel:+86-025 68618183 Fax:+86-025 68618143



Ultraviolet irradiation cross-linked polyethylene insulation Compound(10kV)

PRODUCT CODE :3301

Product standard: JB/T 10437-2004

The product is produced by mixing low density polyethylene resin (as binder), light cross-linking agent, antioxidant and other additives. Cables made from this product are smooth and round and has a good hand feeling, it has excellent physical and mechanical properties, and electrical performance after ultraviolet irradiation cross-linked.

Application: Dedicated to production of power wire and cable (10kV); Allowed maximum working temperature is 90°C.

Property:

Item	Unit	Test method	Typical value
Tensile strength	MPa	IEC60811-1-1	20.2
Elongation at break	%	IEC60811-1-1	616
(Impact embrittlement performance @-76°C) Failure number	Piece	ASTM D746	0/30
(After aging@135°C, 168h) Tensile strength variation Breaking elongation variation	% %	IEC 60811-1-2	+6 +10
(Hot prolongation@200°C, 0.2MPa, 15min) Elongation under the load Permanent deformation	% %	IEC 60811-2-1	65 0
Dielectric dissipation factor@20°C, 50HZ		IEC 60250	2×10 ⁻⁴
Relative dielectric constant@20°C, 50HZ		IEC 60250	1.75
Dielectric strength@20°C	MV/m	IEC 60243-1	40
Volume resistivity@20°C	Ω •m	IEC 60093	2.1×10 ¹⁵
Gel content	%	ASTM D2765	80

Processing

Recommend for polyethylene specific extruder .Draw ratio is from 18:1 to 25:1 and other equipment need to be adjusted according to the circumstance.

Temperature section	1	2	3	4	5	6	7	8	9	10	- 11
°C	145	155	165	185	190	190	195	195	190	190	205

⁻ Above temperature is only for reference.

Storage

Keep at room temperature; Storage environment should be clean, dry and ventilated; Time limit for the storage is within six months from the date of production.

Product packaging:

Each package content is 25kg; Aluminum foil vacuum seal, with composite paper bags outside.

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Ultraviolet irradiation cross-linked polyethylene insulation Compound(3kV)

PRODUCT CODE:3302

Product standard: JB/T 10437-2004

The product is produced by using low density polyethylene resin as basic material, adding light cross-linking agent, antioxidant and other additives, mixing it smooth and rounded. Cable made from this product has good touch feeling, after ultraviolet irradiation cross-linked; it has excellent physical and mechanical properties and electrical performance.

Application: Dedicated to production of power wire and cable(3kV); Allow maximum working temperature is 90°C.

Property:

Item	Unit	Test method	Typical value
Tensile strength	MPa	IEC60811-1-1	19.8
Elongation at break	%	IEC60811-1-1	656
(Impact embrittlement performance @-76℃) Failure number	Piece	ASTM D746	0/30
(After aging@135°C, 168h) Tensile strength variation Breaking elongation variation	% %	IEC 60811-1-2	+9 +10
(Hot prolongation@200°C, 0.2MPa, 15min) Flongation under the load Permanent deformation	% %	IEC 60811-2-1	60 0
Dielectric dissipation factor@20°C, 50HZ	-	IEC 60250	2×10 ⁻⁴
Relative dielectric constant@20°C, 50HZ	-	IEC 60250	1.7
Dielectric strength@20°C	MV/m	IEC 60243-1	38
Volume resistivity@20°C	Ω •m	IEC 60093	1×10 ¹⁵
Gel content	%	ASTM D2765	85

Processing

Recommend for polyethylene specific extruder .Draw ratio is from 18:1 to 25:1 and other equipment need to be adjusted according to the circumstance.

Temperature section	1	2	3	4	5	6	7	8	9	10	11
°C	145	155	165	185	190	190	195	195	190	190	205

⁻ Above temperature is only for reference.

Storage

Keep at room temperature; Storage environment should be clean, dry and ventilated; Time limit for the storage is within six months from the date of production.

Product packaging:

Each package content is 25kg; Aluminum foil vacuum seal, with composite paper bags outside.

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Peroxide cross-linked type semiconductor shielding materials for insulated cable conductor (10kV)

PRODUCT CODE:4101

Product standard: JB/T 10738-2007

The product for polyolefin is cross-linked semiconducting shielding material. It is produced by using high quality EVA resin, conductive black carbon as the main material, adding cross-linking agent, antioxidant and other additives; mixed granulation and fabrication process is stable and reliable in quality.

Application: Applicable for shielding material of 10kV cross-linked polyethylene insulated cable conductor and insulation layer cross-linked semiconductor; Allow maximum working temperature of 90 °C.

Property:

Item	Unit	Test method	Typical value
Density @23℃	g/cm³	ASTM D792	1.12
Tensile strength	MPa	IEC60811-1-1	16.5
Elongation at break	%	IEC60811-1-1	320
(Impact embrittlement performance@ -40℃) Failure number	Piece	ASTM D746	0/30
(After aging@135°C, 168h) Tensile strength variation Breaking elongation variation	% %	IEC 60811-1-2	+9 -3
(Hot prolongation@200°C, 0.2MPa, 15min) Elongation under the load Permanent deformation	% %	IEC 60811-2-1	48 -3
Volume resistivity@20°C	Ω•cm	ASTM D257	30
Volume resistivity@90°C	Ω •cm	ASTM D257	298

Processing

Recommend for polyethylene specific extruder .Draw ratio is from 18:1 to 25:1 and other equipment need to be adjusted according to the circumstance.

Temperature Zone	Barrel	Head
°C	80-110	110-115

⁻ Above temperature is only for reference.

Storage:

Keep at room temperature; Storage environment should be clean, dry and ventilated; Please dry opened for long time.

Product packaging:

Each package content is 600kg; Package is sealed by film bag; Corrugated carton tray at the bottom.

Tel:+86-025 68618183

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Website:www.zcnewmaterials.com



Thermoplastic semiconductor shielding compound

РГООИСТ СООЕ: 4102

Product standard: JB/T 10738-2007

The product is a kind of thermoplastic semiconducting shielding material, produced by mixed granulation based on high quality EVA resin, conductive carbon black as the main material, antioxidant and other additives. It has good fabricated extruding performance and good electrical conductivity with wide processing temperature range.

Application: Applicable to 10kV and below cross-linked polyethylene insulated cable conductor shield; Allowed maximum working temperature is 70 °C.

Property:

Item	Unit	Test method	Typical value
Density @23℃	g/cm³	ASTM D792	1.11
Tensile strength	MPa	IEC60811-1-1	10.5
Elongation at break	%	IEC60811-1-1	420
(Impact embrittlement performance@ -10℃) Failure number	Piece	ASTM D746	0/30
(After aging@135°C, 168h) Tensile strength variation Breaking elongation variation	% %	IEC 60811-1-2	+10 -8
Volume resistivity@20°C	Ω • cm	ASTM D257	20
Volume resistivity@90°C	Ω •cm	ASTM D257	258

Processing

Recommend, the process with specific extruder for shielding materials (draw ratio L/D = 20-25), other length to diameter ratio should be adjusted according to the circumstance.

Temperature Zone	Barrel	Head
℃	80-110	110-115

⁻ Above temperature is only for reference.

Storage:

Keep at room temperature; Storage environment should be clean, dry and ventilated; Please dry after long time opening.

Product packaging:

Each package content is 600kg; Lined with plastic film bag packing; Corrugated carton tray at the bottom.

Tel:+86-025 68618183 Fax:+86-025 68618143



Peroxide cross-linked strippable semiconductor shielding compound for 10kV crowded insulated cable insulation

PRODUCT CODE: 4201

Product standard: JB/T 10738 -2007

The product, polyolefin is a cross-linked semiconducting shielding material. It is produced by using high quality EVA resin, with mainly conductive black carbon material, cross-linking agent, antioxidant and other additives, mixed granulation, and the product quality performance is stable and reliable.

Application: Applicable to 10kV cross-linked polyethylene insulated cable insulation using cross-linked type strippable semiconducting shielding materials; Allowable working maximum temperature, 90 °C.

Property:

Item	Unit	Test method	Typical value
Density @23℃	g/cm³	ASTM D792	1.11
Tensile strength	MPa	IEC60811-1-1	16.0
Elongation at break	%	IEC60811-1-1	330
(Impact embrittlement performance@ -40°C) Failure number	Piece	ASTM D746	0/30
(After aging@135°C, 168h) Tensile strength variation Breaking elongation variation	% %	IEC 60811-1-2	+10 -5
(Hot prolongation@200°C, 0.2MPa, 15min) Elongation under the load Permanent deformation	% %	IEC 60811-2-1	55 0
Volume resistivity@20°C	Ω • cm	ASTM D257	65
Volume resistivity@90°C	Ω •cm	ASTM D257	258
Peel strength	N/cm	ASTM D3330-02	25

Processing

Recommend, the process with specific extruder for shielding materials (draw ratio L/D = 20-25), other length to diameter ratio should be adjusted according to the circumstance.

Temperature Zone	Barrel	Head
°C	80-110	110-115

⁻ Above temperature is only for reference.

Storage:

Keep at room temperature; Storage environment should be clean, dry and ventilated; Please dry after long time opening.

Product packaging:

Each package content is 600kg; Packaged sealed with film bag; Corrugated carton with tray at the bottom.

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Website:www.zcnewmaterials.com



Peroxide cross-linked type semiconducting shielding materials for insulated cable conductor (35kV)

PEDDUCT CODE :4III

Product standard: JB/T 10738-2007

The product for polyolefin is cross-linked semiconducting shielding materials; it is produced by using high quality EVA resin, conductive black carbon as the main material, cross-linking agent, antioxidant and other additives; mixed granulation, and fabrication process is stable and reliable in quality.

Application: Applicable for shielding material of 35kV cross-linked polyethylene insulated cable conductor and insulation layer cross-linked semiconductor; Allowed maximum working temperature is 90 °C.

Property:

Item	Unit	Test method	Typical value
Density @23℃	g/cm³	ASTM D792	1.12
Tensile strength	MPa	IEC60811-1-1	17.0
Elongation at break	%	IEC60811-1-1	308
(Impact embrittlement performance@ -40℃) Failure number	Piece	ASTM D746	0/30
(After aging@135°C, 168h) Tensile strength variation Breaking elongation variation	% %	IEC 60811-1-2	+7 -5
(Hot prolongation@200°C, 0.2IVIPa, 15min) Elongation under the load Permanent deformation	% %	IEC 60811-2-1	50 0
Volume resistivity@20℃	Ω •cm	ASTM D257	25
Volume resistivity@90°C	Ω • cm	ASTM D257	240

Processing

Recommend the process with specific extruder for shielding materials (draw ratio L/D = 20-25), other length to diameter ratio should be adjusted according to the circumstance.

Temperature Zone	Barrel	Head
℃	80-110	110-115

Above temperature is only for reference.

Storage:

Keep at room temperature; Storage environment should be clean, dry and ventilated; Please dry after long time opening.

Product packaging:

Each package content is 600kg; Sealed package by film bag; Corrugated carton tray at the bottom.

Tel:+86-025 68618183 Fax:+86-025 68618143



Peroxide cross-linked strippable semiconductor shielding comp -ound for 35kV crowded insulated cable insulation

PEDDUCT CODE:4211

Product standard: JB/T 10738-2007

The product polyolefin is cross-linked semiconducting shielding material. It is produced by using high quality EVA resin, with mainly conductive black carbon material, cross-linking agent, antioxidant and other additives, mixed granulation and the product performance quality is stable and reliable.

Application: Applicable to 35 kV cross-linked polyethylene insulated cable insulation using cross-linked type strippable semiconducting shielding materials; Allowable working maximum temperature 90 °C.

Property:

Item	Unit	Test method	Typical value
Density @23°C	g/cm³	ASTM D792	1.13
Tensile strength	MPa	IEC60811-1-1	16.0
Elongation at break	%	IEC60811-1-1	328
(Impact embrittlement performance@ -40℃) Failure number	Piece	ASTM D746	0/30
(After aging@135°C, 168h) Tensile strength variation Breaking elongation variation	% %	IEC 60811-1-2	+8 -5
(Hot prolongation@200°C, 0.2MPa, 15min) Elongation under the load Permanent deformation	% %	IEC 60811-2-1	60 0
Volume resistivity@20°C	Ω •cm	ASTM D257	60
Volume resistivity@90°C	Ω • cm	ASTM D257	220
Peel strength	N/cm	ASTM D3330-02	20

Processing

Recommend the process with specific extruder for shielding materials (draw ratio L/D = 20-25), other length to diameter ratio should be adjusted according to the circumstance.

Temperature Zone	Barrel	Head
°C	80-110	110-115

⁻ Above temperature is only for reference.

Storage:

Keep at room temperature; Storage environment should be clean, dry and ventilated; Please dry after long time opening.

Product packaging:

Each package content is 600kg; Package is sealed with film bag; Corrugated carton tray at the bottom.

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Website:www.zcnewmaterials.com



Peroxide cross-linked strippable semiconducting shielding compound for 35 kV crowded insulated cable insulation

PRODUCT CODE: 4212

Product standard: JB/T 10738 -2007

The product polyolefin is cross-linked semiconducting shielding material. It is produced by using high quality EVA resin, with mainly conductive black carbon material, cross-linking agent, antioxidant and other additives, mixed granulation and the product performance quality is stable and reliable.

Application:-Applicable to 35kV cross-linked polyethylene insulated cable insulation using cross-linked type un-strippable semiconducting shielding materials; Allowable working maximum temperature is 90 °C.

Property:

Item	Unit	Test method	Typical value
Density @23℃	g/cm³	ASTM D792	1.13
Tensile strength	MPa	IEC60811-1-1	16.7
Elongation at break	%	IEC60811-1-1	305
(Impact embrittlement performance@ -40℃) Failure number	Piece	ASTM D746	0/30
(After aging@135°C, 168h) Tensile strength variation Breaking elongation variation	% %	IEC 60811-1-2	+7 -8
(Hot prolongation@200°C, 0.2MPa, 15min) Elongation under the load Permanent deformation	% %	IEC 60811-2-1	60 0
Volume resistivity@20°C	Ω •cm	ASTM D257	62
Valume resistivity@90°C	Ω • cm	ASTM D257	235

Processing

Recommend, the process with specific extruder for shielding materials (draw ratio L/D = 20-25), other length to diameter ratio should be adjusted according to the circumstance.

Temperature Zone	Barrel	Head
℃	80-110	110-115

⁻ Above temperature is only for reference.

Storage:

Keep at room temperature; Storage environment should be clean, dry and ventilated; Please dry after long time opening.

Product packaging:

Each package content is 600kg; Each package sealed with film bag; Corrugated carton with tray at the bottom.

Tel:+86-025 68618183 Fax:+86-025 68618143



Low smoke halogen-free flame retardant polyolefin thermopl -astic type cable insulation compound

PRODUCT CODE : 5201

Product standard: JB/T 10707-2007

The product is produced through continuous mixing plasticizing granulation based on polyolefin as matrix, adding inorganic flame retardants, compatilizer, lubricants, antioxidant and other additives through continuous mixing plasticizing granulation. The product has stable properties, good extrusion process ability, mechanical properties and flame retardant properties.

Application: Applicable for flame retardant polyethylene wire and cable insulation layer and other requirement for flame retardant materials; Applicable for communication cable, control cable and power cable insulation; Allowable maximum working temperature is 90°C.

Property:

Item	Unit	Test method	Typical value
Density @23℃	g/cm³	ASTM D792	1.42
Tensile strength	MPa	IEC60811-1-1	11.8
Elongation at break	%	IEC60811-1-1	195
(Impact embrittlement performance@ -25°C) Failure number	Piece	ASTM D746	0/30
(After aging @100°C, 168h) Tensile strength Elongation at break Tensile strength variation Breaking elongation variation	MPa % % %	IEC 60811-1-1 IEC 60811-1-1 IEC 60811-1-2 IEC 60811-1-2	13.0 177 10 -9
Thermal deformation@90°C×4h	%	IEC 60227-1	35
Volume resistivity@20°C	Ω•m	IEC 60093	8×10 ¹²
Dielectric strength@20°C	MV/m	IEC 60243-1	33
(Smoke density) Flaming No flaming	12	ASTM E662	65 215
Oxygen index	_	ISO 4589	34
(Corrosion testing) The halogen acid gas content pH Electrical conductivity	mg/g — μS/mm	IEC 60754-1 IEC 60754-2 IEC 60754-2	3 6 3

Processing

Suitable for most of PVC extrusion equipment, recommend to use specific low smoke halogen-free screw length to diameter ratio (L/D = 20-25), other length to diameter ratio should be adjusted according to the circumstance

Zone	Feeding	Head	Melting	Head (Model)
°C	100-110	110-120	120-130	120-130

⁻ Above temperature is only for reference.

Storage:

Keep at room temperature; Storage environment should be clean, dry and ventilated; Please dry after long time opening.

Product packaging:

Each package content 25kg; Aluminum foil vacuum seal, with composite paper bags outside.

Tel:+86-025 68618183 Fax:+86-025 68618143



Low smoke halogen-free flame retardant polyolefin thermoplastic type cable sheath compound

PRODUCT CODE :SIDI

Product standard: JB/T 10707-2007

The product is produced through continuous mixing plasticizing granulation based on polyolefin as matrix, inorganic flame retardants, compatilizer, lubricants, antioxidant and other additives through continuous mixing plasticizing granulation. The product has stable properties, good extrusion process ability, mechanical properties and flame retardant properties.

Application: Applicable for flame retardant polyethylene wire and cable sheath layer and other requirement for flame retardant materials; Applicable forgeable sheath of communication cable, control cable and power cable Allowable maximum working temperature is 90 °C.

Property:

Item	Unit	Test method	Typical value
Density @23℃	g/cm ³	ASTM D792	1.41
Tensile strength	MPa	IEC60811-1-1	11.5
Elongation at break	%	IEC60811-1-1	208
(Impact embrittlement performance@ -25℃) Failure number	Piece	ASTM D746	0/30
(After aging @100°C, 168h) Tensile strength Elongation at break Tensile strength variation Breaking elongation variation	MPa % % %	IEC 60811-1-1 IEC 60811-1-1 IEC 60811-1-2 IEC 60811-1-2	12.5 170 8 -18
Thermal deformation@90°C×4h	%	IEC 60227-1	31
Volume resistivity@20°C	Ω•m	IEC 60093	5×10 ¹¹
Dielectric strength@20°C	MV/m	IEC 60243-1	28
(Smoke density) Flaming No flaming	= 1	ASTM E662	60 200
Oxygen index		ISO 4589	35
(Corrosion testing) The halogen acid gas content pH Electrical conductivity	mg/g — μS/mm	IEC 60754-1 IEC 60754-2 IEC 60754-2	3 5 3

Processing

Suitable for most of PVC extrusion equipment, recommend to use specific low smoke halogen-free screw length to diameter ratio (L/D = 20-25), other length to diameter ratio should be adjusted according to the circumstance

Zone	Feeding	Head	Melting	Head (Model)	
°C	100-110	110-120	120-130	120-130	

⁻ Above temperature is only for reference.

Storage:

Keep at room temperature; Storage environment should be clean, dry and ventilated; Please dry after long time opening.

Product packaging:

Each package content 25kg; Aluminum foil vacuum seal, with composite paper bags outside.

Tel:+86-025 68618183 Fax:+86-025 68618143



Halogen-free flame retardant polyolefin ship communication cable sheath material

PRODUCT CODE :05001

This product is designed to improve the cable polyolefin sheathed flame-retardant performance for ship, communications and power cable (aluminum hydroxide is the fire retardant), it does not emit toxic gases, and has excellent low smoke zero halogen and machining performance, and the equilibrium stability of the flame retardant performance as well.

Application: IEC 60092-359 TYPE SHF; IEC 60502 ST8; BS7655 :6.1 TYPES LTS1 & LTS3; VDE 207 HM2& HM4; Twisted-pair cable and communication cable sheath

Property:

Item	Unit	Test method	Typical value	
Density @23℃	g/cm³	ASTM D792	1.50	
Tensile strength	MPa	IEC60811-1-1	12	
Melt flow index@170℃, 21.6kg	g/10min	ASTM D1238	14	
(Smoke density) Flaming (3mm) Flaming (0.5mm)	Ds Max	ASTM E662	90 60	
(After aging@100°C, 168h) T.S retention Elongation retention	% %	IEC 60811-1-2	90 85	
(Oil resistance@IRM 902/70°C,4h) T.S retention Elongation retention	% %	IEC 60811-2-1	90 85	
Hot pressure test@80°C	%	IEC 60811-3-1	20	
Cold impact test@-15°C		IEC 60811-1-4	PASS	
Elogation at break	%	IEC 60811-1-1	200	
(Corrosion test) pH conductivity	- μs/mm	IEC 60754-2	5.0 2.5	
Halogen acid gas evolution	%	IEC 60754-1	not detected	
Oxygen index	%	ASTM D2863	37	
Volume resistivity	Ω.m	ASTM D257	1×10 ¹⁵	
Hardness	Shore D	ASTM D2240	50	

Processing

Cl	C2	C3	C4	C5	Neck	Head	Die
140	145	150	155	155	160	160	160

Recommend to use conventional extruder (equipped with a three-stage PE/PVC or protective screw. Length to diameter ratio of 20 ~ 24:1, and compression ratio of 1.2-1.8:1) for extrusion operation.

Storage

Keep from 10 to 30 degrees centigrade at room temperature; Six- month shelf life in clean and dry environment; If opened for a long time, please use dryer to dry it in 60-70 degrees centigrade for 3-4 hours; In order to ensure safety, please refer to the material safety data sheet.

Product packaging:

Each case content is 500&750kg (Aluminum foil paper carton); Each package content is 25kg. (Aluminum foil bag).

User Service:

we will provide the user service according to the different needs of customers.

Tel:+86-025 68618183 Fax:+86-025 68618143



Halogen-free flame retardant thermal fluid (beam) covering materials for cable insulation

PRODUCT CODE :05002

This is a used halogen-free flame retardant heat curing (beam) of wire and cable insulation materials, it does not emit toxic gases and, has excellent perfor-mance, low smoke zero halogen and is suitable for wire and cable insulation and solar cells.

Application: IEC 60092-359 SHF 2; UL 3271 UL 3266, CSA AWM IA/B; EN 50265-2-1, EN50266-2-4, EN 50267-2; BS EN 50264-1; Railway, industrial, and marine areas.

Property:

Item	Unit	Test method	Typical value	
Density @23℃	g/cm ³	ASTM D792	1.30	
Tensile strength	MPa	IEC60811-1-1	15	
Melt flow index@170℃, 21.6kg	g/10min	ASTM D1238	14	
(Smoke density) Flaming Flaming (0.5mm)	Ds Max	ASTM E662	- 80	
(After aging@150°C, 168h) TS retention Elongation retention	% %	IEC 60811-1-2	90 85	
(Oil resistance@ASTM #2 Oil 100°C,72hrs) Tensile strength Elongation at break	Kgf/cm %	IEC 60811-1-2	80 80	
Hot pressure test@90°C	%	IEC 60811-3-1	0	
Cold impact test@-15°C	7.1	IEC 60811-1-4	PASS	
Elogation at break	%	IEC 60811-1-1	420	
(Corrosion test) pH conductivity	- μs/mm	IEC 60754-2	5.0 3.8	
Halogen acid gas evolution	%	IEC 60754-1	0.1	
Oxygen index	%	ASTM D2863	34	
Volume resistivity	Ω.m	ASTM D257	1×10 ¹⁵	
Hardness	Shore A	ASTM D2240	95	
(Thermalization, install @200°C/15m,in, 20N/15com) load elongation Permanent elongation	% %	IEC 60811-2-1	45 2.5	
curing condition			1Mev×20Mra	

Processing

C1	C2	C3	C4	C5	Neck	Head	Die
150	160	170	175	180	180	180	185

Recommend to use conventional extruder (with a three-stage or PE/PVC protective screen type cuts screw, length to diameter ratio of 24:1, and compression ratio of 3:1) for extrusion operation.

Storage:

Keep from 10 to 30 degrees centigrade at room temperature; Six- month shelf life in clean and dry environment; If opened for a long time, please use dryer to dry it in 60-70 degrees centigrade for 3-4 hours; In order to ensure safety, please refer to the material safety data sheet.

Product packaging:

Each case content is 500kg (Aluminum foil paper carton); Each package content is 25kg. (Aluminum foil bag).

User Service:

we will provide the user service according to the different needs of customers.

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◆ Control room of production line for XLPE

Production plant for ► XLPE



WOLKSHOP

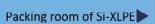
BRABENDER Loss-inweight Feeders



Finished goods warehouse

Raw materials warehouse of 1st branch



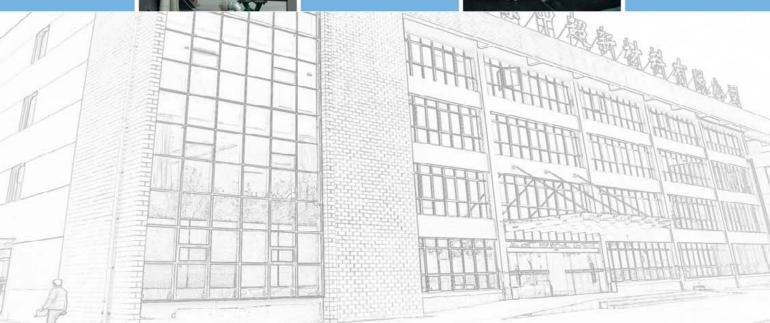






Production plant of Halogen-free and Shielding materials

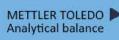




Dust-free feeding room ▶ of the 1st branch Production workshop for XLPE of the 1st branch Production plant for Extruding machine Si-XLPE(Silane cross-linked polyethylene insulation compound) WOLKZHOP Production plant of Halogen-free and Shielding materials









Constant temperature water bath device

Natural ventilation and
thermal aging box



Overall view of the lab





Thermal stability testing machine (left) Gel content determination device (right)

Equipment for testing dielectric strength





■ Equipment for testing Melt flow rate

Mixing machine >

Universal testing machine









QULIFICATIONS FILE







TO SATISFY CUSTOMER REQUIREMENTS

TO ACHIEVE"ZERO-DEFECT" GOAL.

QUALITY IS MADE BY PRODUCTION NOT BY Q.C.



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