



**KIMIA JAVID**  
**SEPAHAN Co.**

**Enhance**  
Polymer Characteristics



## **COATING COMPOUND PRODUCTS**

- **COMPOSITE PIPE**
- **WIRE & CABLE**
- **WPC COMPOSITE**
- **MULTI LAYER PACKAGING**

[www.kimiajavidco.com](http://www.kimiajavidco.com)



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**KJS**

Kimia Javid Sepahan (KJS), one of the subsidiary companies of Modern Product Jahanara (MPJ) Industrial Group, is an innovative knowledge-based company that was established to produce various kinds of polymer compounds in 1998. Currently KJS production capacity is approximately 100,000 tons per year and it has more than 400 employees with an excellent polymer research center. Although 300 different grades in six major categories as cross-linkable polyethylene, reinforced polymer compounds, coating compounds, functionalized polymers, masterbatches, and hot-melt adhesives, KJS can provide custom – made grades to satisfy customers needs with the best quality materials. KJS as a pioneer in compounding industry implements novel processing. To achieve our goals, the company has successfully received ISO 9001:2015, ISO 29001:2010, ISO 14001:2015, ISO 45001:2008, and ISO IEC 17025 from TUV Austria Cert. Furthermore, All kinds of KJS compounds related to food and hygienic products are certified by the Ministry of Health and Medical Education of Middle East.

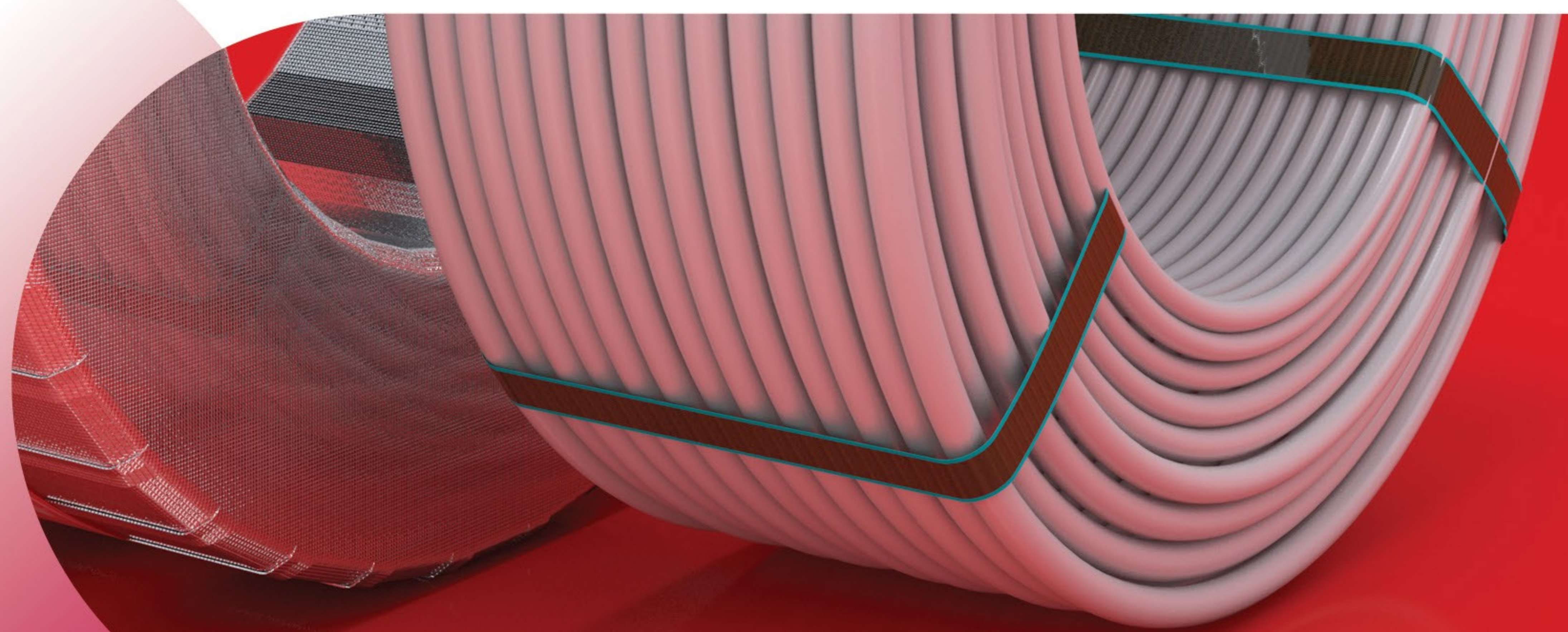




**COATING COMPOUND**  
**CROSS-LINKABLE POLYETHYLENE (PEX)**

Kimcross PEX compounds are family of silane cross-linkable polyethylene compounds made by Sioplas method. These compounds cure by addition of catalyst masterbatch and exposure to moisture and mainly used for monolayer and multilayer pipes with different diameters. PEX can also be used for other applications requiring high or low working temperatures, and improved chemical and/or abrasion resistance. Our priority is providing durable products for sustainable and safe use of limited natural resources while adhering to stringent standards to fully ensure the highest pipe quality on the world market.

CROSS-LINKABLE POLYETHYLENE (PEX)							
Product Name	Density (g/cm <sup>3</sup> )	MFI at 190 °C, 5kg (g/10 min)	Application				Specification
			Flexible hoses	Sanitary pipes	Underfloor heating pipe	Industrial Pipe	
Kimcross 1400	0.945	5.5		●			High-density white color PEX compound for smooth-surface composite pipes in sanitary and heating system
Kimcross 1403	0.945	1.5	●	●			Ambient curing natural color PEX compound used in single-layer pipes
Kimcross 1405	0.895	3	●				Ambient curing natural color cross-linkable Polyolefin with high flexibility used in flexible hoses and composite flexible pipes
Kimcross 1415	0.950	2		●	●	●	High-density, natural color PEX compound for composite/multilayer sanitary and heating system, enabling high extrusion consistency even with low wall thicknesses or big outer diameter
Kimcross 1450	0.945	5.5		●	●	●	General purpose, high-density, natural color PEX compound for all-plastic pipes





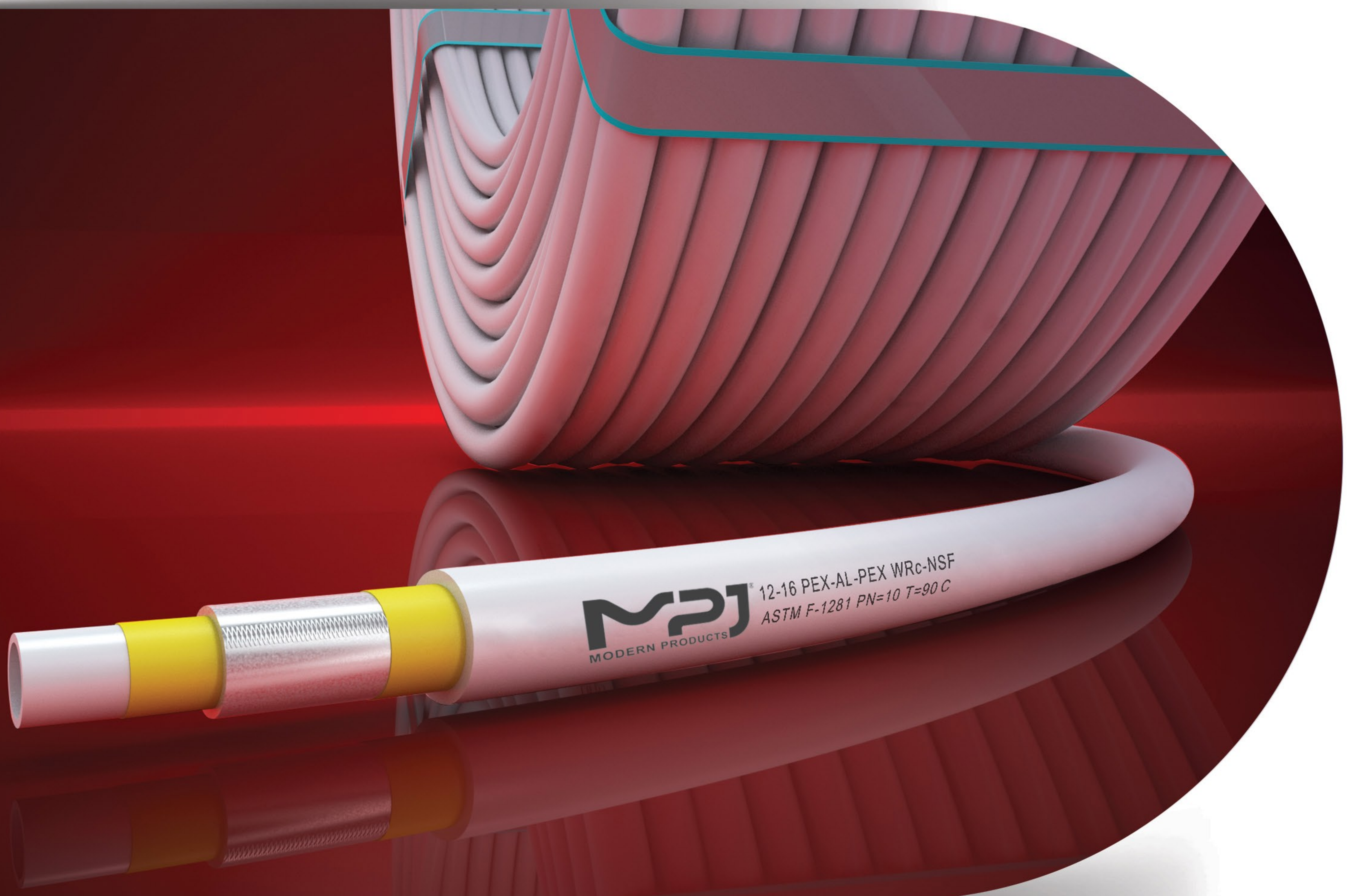
These groups of products meet the standards “ISO 15875”, “ASTM F1281”, and “DIN 16892” for hot and cold water pressure pipes. While the improved maximum operating temperature is one of the initial attractions of cross-linking, these materials have several features against uncross-linked polyethylene.

### Key features:

- Higher heat resistance
- Better chemical and chlorine resistance
- Improved resistance to oxidative aging
- Superior resistance to crack propagation
- Better abrasion resistance
- Higher-strength at elevated temperature
- Outstanding resistance to slow crack growth

### Application:

- Domestic multilayer & single-layer hot/cold water pipes
- Underfloor heating system
- Gas piping







**COATING COMPOUND**  
**CROSS-LINKABLE POLYETHYLENE (XLPE)**

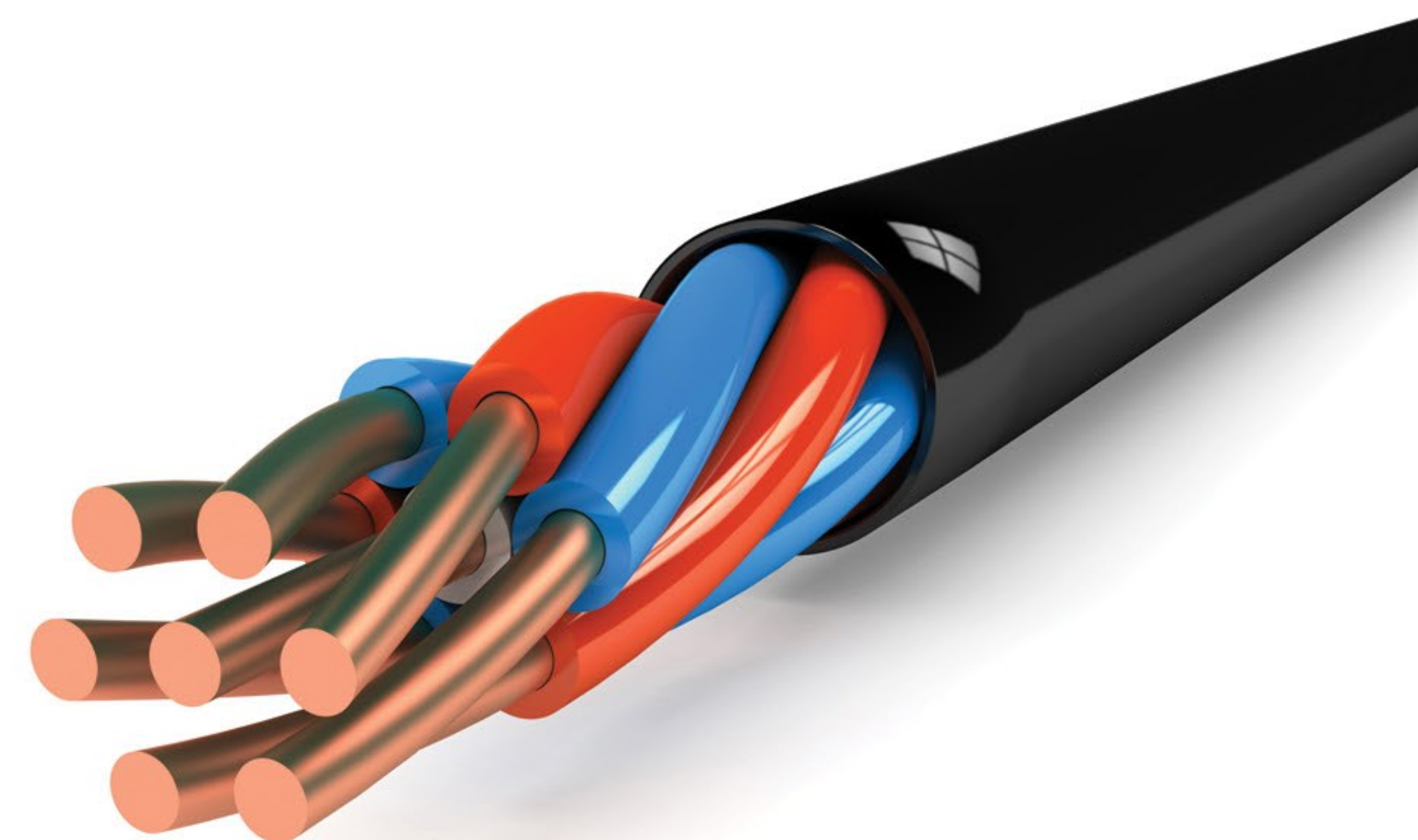
Our Sioplas-type crosslinkable polyethylene Kimcross (XLPE) compounds are ideal for self-supporting overhead cable and power cable insulation in the wire and cable industry. XLPE can also be used as a material for applications requiring high or low working temperatures, good chemical and abrasion resistance.

CROSS-LINKABLE POLYETHYLENE (XLPE)					
Product Name	Density (g/cm <sup>3</sup> )	MFI at 190 °C, 5 kg (g/10 min)	Application		Specification
			Self-supporting overhead cable	Power cable insulation	
Kimcross 1205	0.935	2.5	●		Medium-density, black color XLPE compound for self-supporting overhead cable.
Kimcross 1207	0.935	3.5	●		Medium-density, black color XLPE compound used in high-speed lines for self-supporting overhead cables.
Kimcross 1230	0.930	3.5		●	Low-density, natural color XLPE compound for power cable insulation with excellent mechanical and electrical properties.
Kimcross 1240	0.925	3.5		●	Linear low-density, natural color XLPE compound for power cable insulation, high surface gloss, and excellent mechanical & electrical properties.
Kimcross 1245	0.925	2.5		●	Flame retardant XLPE compound with high curing speed
Kimcross 1250	0.925	2.5		●	Low-density, natural color XLPE compound for power cable insulation with low shrinkage.

These groups of product meet the standards “IEC 60502”, “ASTM D1248”, and “ICEA S-66-524”, and “NFC 33209”.

**Key Features**

- High temperature and hydrolysis resistance
- High environmental stresses - cracking resistance (ESCR)
- High electrical and insulation properties
- Excellent mechanical properties

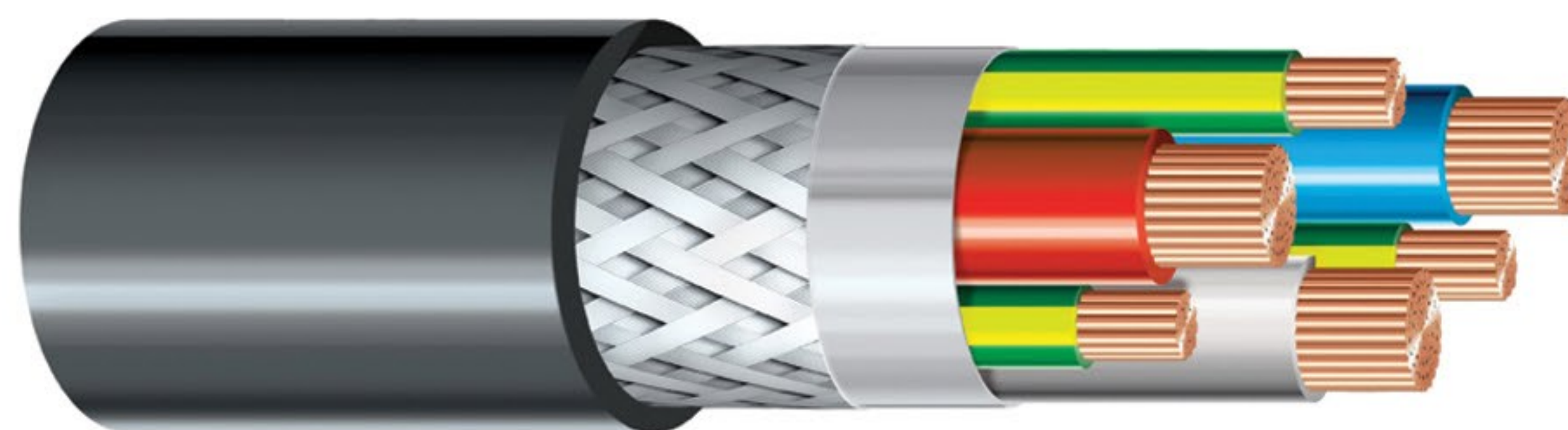




**COATING COMPOUND**  
**CATALYST MASTERBATCH**

Catalyst masterbatch series is based on polyolefin and used with both PEX and XLPE compounds that will optimize cross-linking rate. A wide range of grades allow matching different applications requirements. Each compound technical literature refers to catalyst masterbatch selection and dosing.

CATALYST MASTERBATCH					
Product Name	Density (g/cm <sup>3</sup> )	MFI at 190 °C, 2.16 kg (g/10 min)	Application		Specification
			Kimcross PEX	Kimcross XLPE	
Kimcross 1310	0.920	3.5		●	Very high aging resistance catalyst masterbatch applicable with Kimcross 1230 & 1240.
Kimcross 1331	0.920	4.0		●	Containing additives to prevent scorch and oxidation high resistance to copper aging applicable with Kimcross 1230 & 1240.
Kimcross 1334	0.940	4.0	●		To be used especially for Kimcross 1400, 1403, 1405, 1415 & 1450
Kimcross 1357	0.920	3.5		●	Low-density, natural color XLPE compound for power cable insulation with low shrinkage.
Kimcross 1360	0.920	9-12		●	Flame retardant catalyst







**COATING COMPOUND**  
**HALOGEN-FREE FLAME RETARDANT (HFFR)**

Kimfill is a wide range of thermoplastic halogen-free flame retardant (HFFR) and non-toxic compounds based on polyolefin and specific mineral fillers. These grades can be used for insulation and sheathing in power, signal, control and communication cables where flame retardancy and low smoke emission during combustion are essential.

**HALOGEN FREE FLAME RETARDANT (HFFR)**

Product Name	Density (g/cm <sup>3</sup> )	MFI at 150 °C, 21.6 kg (g/10 min)	Application			Specification
			Cable Insulation	Cable Sheathing	Cable Bedding	
Kimfill 4146	1.45	4.5	●	●		Black color, general-purpose
Kimfill 4150	1.51	8	●			Natural color, general-purpose, high fluidity
Kimfill 4151	1.47	4.0	●	●		Natural color, good stress crack resistance
Kimfill 4153	1.52	3	●			Natural color, high flame retardancy
Kimfill 4155	1.38	12	●			Natural color, high flexibility
Kimfill 4163	1.65	6.0			●	Natural color, bedding & filler

**Key features:**

- Superior fire retardancy, low smoke emission
- Excellent mechanical properties
- Easy processing







**COATING COMPOUND  
POLYETHYLENE COMPOUNDS**

Kimalloy compounds are designed for several applications such as wire and cable, oil and gas industries. These grades are giving outstanding balance to all important properties like, excellent ESCR and good processability.

POLYETHYLENE COMPOUNDS									
Product Name	Density (g/cm <sup>3</sup> )	MFI at 190°C, 2.16 kg (g/10 min)	Application						Specification
			Communication Cable Insulation	Cable Sheathing	Coaxial Cable Sheathing	Coaxial Cable Insulation	Steel Pipe Coating	Irrigation Pipe	
Kimalloy 3401	0.945	0.8	●						Black color, high-density, according to ASTM D1248 type3-class A- category 4
Kimalloy 3402	0.940	0.7		●					Black color, high-density, according to ASTM D1248 type3-class A- category 4
Kimalloy 3403	0.920	0.6				●			Natural color, low-density, according to ASTM D1248 type3-class A- category 4
Kimalloy 3404	0.945	0.5		●					Black color, high-density, according to ASTM D1248 type3-class A- category 4
Kimalloy 3406	0.945	0.4					●		Black color, high-density, according to ISO 21809-1 & DIN 30670
Kimalloy 3421	0.945	0.7	●						Natural color, high-density, according to ASTM D1248 type3-class A- category 4
Kimalloy 3429	0.935	0.4						●	Black color, low-density, according to INSO7607
Kimalloy 3002	0.90	1.0					●		Natural color polypropylene, according to ISO 21809-1 & DIN 30670
Kimalloy 3003	0.90	1.0					●		White color polypropylene, according to ISO 21809-1 & DIN 30670

**Key features:**

- Excellent ESCR
- Excellent mechanical properties
- Easy processing









**FUNCTIONALIZED POLYOLEFIN  
MALEIC ANHYDRIDE GRAFTED POLYOLEFIN**

The increasing number of demands and growing consumption of plastics require more types of composite materials. In order to meet this requirement, materials have to be changed in proper ways. Polyolefins can be chemically modified by grafted with maleic anhydride in order to reduce interfacial energy and increase adhesion. Kimcross functionalized polyolefins, despite their polarity and adhesiveness, still maintain the basic property of polyolefin resins.

**FUNCTIONALIZED POLYOLEFIN**

grade	Density (g/cm <sup>3</sup> )	MFI at 190 °C, 2.16 kg (g/10 min)	Filled Compounds	Wood Plastic	Multilayer Packaging	Composite Pipe	Multilayer Fuel Tank	Specification
Kimcross 1101	0.90	>80	●	●				High fluidity polypropylene compatibilizer for glass fiber reinforced polypropylene compound and wood plastic composite.
Kimcross 1104	0.90	>70	●	●				High fluidity polypropylene compatibilizer for glass fiber reinforced polypropylene compound and wood plastic composite.
Kimcross 1122	0.92	0.7	●	●				Linear low-density polyethylene compatibilizer for wood plastic and PA/PE alloy.
Kimcross 1127	0.94	0.5		●				High-density polyethylene compatibilizer for wood plastic composite.
Kimcross 1500	0.92	1.5			●			Tie layer adhesive resin for plastic fuel tank (PFT) and packing sheet for thermoforming
Kimcross 1501	0.92	1.5			●			Tie layer adhesive resin for multilayer tube and bottle
Kimcross 1503	0.92	2			●			Tie layer adhesive resin for multilayer tube (High clarity with high adhesive performance)
Kimcross 1505	0.92	2			●			Tie layer adhesive resin for multilayer film (High clarity with high adhesive performance)
Kimcross 1545	0.94	2.5				●		Tie layer adhesive resin for multilayer composite PEX-AL-PEX pipe.
Kimcross 1575	0.93	1.0				●		Tie layer adhesive resin for multilayer oil & gas steel pipe.
Kimcross 1590	0.93	2.3				●		Tie layer adhesive resin for multilayer oil & gas steel pipe.



**SELECTED CERTIFICATES**





 [www.mpjgroup.co](http://www.mpjgroup.co)  
 [kimiaavidco](https://www.instagram.com/kimiaavidco)  
 +9831-52419

