

XL-PEARL * 60

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Description

XL-PEarl 60 blend is for the manufacture of dry silane masterbatches based on porous polymer carriers. XL-PEarl 60 blend is a crosslinking system designed for crosslinking high-density polyethylene (HDPE) pipe using the XL-PEarl blend one-step process.

It is only available for licensees of the XL-PEarl blend technology.

Key Features and Benefits

- Pipes manufactured using the XL-PEarl blend technology have excellent mechanical properties, outstanding chemical resistance and may be used at temperatures up to 110°C (230°F)
- Special stabilizers prevent premature polymerization of the grafting agent and provide excellent aging properties of crosslinked polyethylene
- High quality surface finish of pipes results from use of the XL-PEarl blend system

Typical Physical Properties

Appearance	Clear liquid
Color	Colorless to straw
Viscosity, mPa s (cP), @ 23°C	2.5
Specific Gravity, g/cm ³ , @25°C	0.969
Flash Point, Tag Closed Cup, ASTM D56-79, °C	23

Potential Applications

Manufacturing of XL-PEarl 60 blend masterbatches for the crosslinking of high-density polyethylene (HDPE) pipes for under-floor heating, hot water pipes for radiators and potable water distribution.

Patent Status

Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute the permission, inducement or recommendation to practice any invention covered by any patent, without

authority from the owner of the patent.

Product Safety, Handling and Storage

Customers should review the latest Safety Data Sheet (SDS) and label for product safety information, safe handling instructions, personal protective equipment if necessary, emergency service contact information, and any special storage conditions required for safety. Momentive Performance Materials (MPM) maintains an around-the-clock emergency service for its products. SDS are available at www.momentive.com or, upon request, from any MPM representative. For product storage and handling procedures to maintain the product quality within our stated specifications, please review Certificates of Analysis, which are available in the Order Center. Use of other materials in conjunction with MPM products (for example, primers) may require additional precautions. Please review and follow the safety information provided by the manufacturer of such other materials.

Processing Recommendations

Performance

High-density polyethylene pipes crosslinked with XL-PEarl 60 blend masterbatches, a suitable stabilizer masterbatch (such as A/O 7017-FT-50 (PolyOne), REX-Stab T-59 (Polyrex), PLP 2020 STMB (Plascom), PE A/O 02012 (Vibatan) etc.) can meet following specifications:

- DIN 16892 (Rohre aus vernetztem Polyethylen)
- EN (155 WI 023)

Application-Potable Water Pipe:

Extruder	Troester 45mm/25L/D
Base Polymer	Lupolen 5031L
Barrel Temperature	170 / 180 / 190 / 200 / 210°C

		3.4% XL-PEarl 60 Blend Masterbatch PE 50 + 5%	3.6% XL-PEarl 60 Blend Masterbatch PE 50 + 5%
Extruder Parameter			
RPM		10	10
Melt Temperature	°C	223	224
Surface Finish		Smooth	Smooth
Gel Content	DIN 16892	72%	77%

Recommended Resins Are:

Type of HDPE Resin	Recommended	BestPerformance
Melt index (190°C/2.16 kg), g/10 min	0.2 -8	6 -8
Density, g/cm ³	0.945-0.955	0.950

Commercially Available HDPE Resins:

HDPE	From	MFI	Density
Lupolen 5031L	Elenac	5-7	0.952
Eltex A4040	Solvay	4	0.944
Eltex B4002	Solvay	0.3	0.949

Limitations

Customers must evaluate Momentive Performance Materials products and make their own determination as to fitness of use in their particular applications.

Contact Information

For product prices, availability, or order placement, contact our customer service at Momentive.com/CustomerService/

For literature and technical assistance, visit our website at: www.momentive.com

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