

**Technical Data Sheet** 

# XL-PEARL<sup>TM</sup> 51 MB HDPE40 XL-PEARL© 51 MB HDPE40

## Description

XL-PEarl 51 blend is for the manufacture of dry silane masterbatches based on porous polymer carriers. XL-PEarl 51 blend is a fully stabilized crosslinking system designed for crosslinking polyethylene low- and medium-voltage copper cables using the XL-PEarl blend one-step process.

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

## Key Features and Benefits

• XL-PEarl 51 blend masterbatches can be used with a wide range of nonstabilized polyethylene grades for optimum cost-effectiveness.

• With an appropriate resin, insulated copper cables crosslinked with XL-PEarl 51 blend masterbatches meet the IEC aging test of 10 days at 135°C (275°F).

• A high onset temperature for grafting improves processing stability and minimizes scorch/crosslinked particles in the insulation layer.

## **Typical Physical Properties**

Appearance	Clear liquid
Color	Light yellow
Viscosity, mPa s (cP), @ 25°C	3.8
Specific Gravity, g/cm <sup>3</sup> , @ 25°C	0.985
Flash Point, Tag Closed Cup, ASTM D56-79, °C	23

## **Potential Applications**

Manufacturing of XL-PEarl 51 blend masterbatches for the crosslinking of low- and medium-voltage power cables based on nonstabilized polyethylene resins.

#### **Patent Status**

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## Product Safety, Handling and Storage

This product has a Self-Acceleration Decomposition Temperature (SADT) of 65°C (149°F), as tested in a 55-gallon drum. Therefore, never store or stow drums of this product at temperatures above 30°C (86°F). Exposure to these elevated temperatures may result in exothermic reactions and fire. Do not consider bulk storage without consulting the manufacturer. Prolonged storage above 30°C (86°F) may affect product performance and shorten the expected shelf life of this product, which is approximately one year.

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#### Processing Recommendations

#### Performance

Moisture-cured cables produced with XL-PEarl 51 blend utilizing the XL-PEarl blend process can meet the IEC 502 cable specification.

XL-PEarl 51 blend masterbatches can only be used with nonstabilized polyethylene resins.

#### Recommended types are:

LDPE resins:	( 0)	0.2 to 0.5 g/10 min. 0.915 to 0.925 g/cm <sup>3</sup>
LLDPE resins:		2 to 6 g/10 min.
	Density:	0.915 to 0.925 g/cm <sup>3</sup>

#### Limitations

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#### **Contact Information**

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