Eltex® PF6160AP

Product Technical Information

Non stabilised Linear Low density polyethylene flake (free flowing powder).

Benefits & Features

ELTEX® PF6160AP is a non stabilised Linear Low density polyethylene flake (free flowing powder) grade manufactured by Ineos Olefins and Polymers Europe containing hexene-1 as the comonomer produced with a metallocene catalyst.

5 to 20 % of **ELTEX® PF6160AP** powder can be used in combination with LLDPE and LDPE pellets as absorber of X-linking agent of Low Voltage Silane Crosslinked insulation.

In addition **ELTEX® PF6160AP** can be used at a level of 100 % for low voltage silane crosslinked insulation by adding 0.7 -0.9 % of vinyl trimethoxysilane, a suitable peroxide and a crosslinking catalyst. Commercial mixtures can be used for this purpose.

The absorption level and the absorption conditions will depend on the nature of the liquid to be dispersed. In most of the cases, a 10 % in weight of liquid can be easily absorbed in **ELTEX® PF6160AP**.

- Good level of porosity which induces a good liquid X-linking agents absorption (silane, peroxide…)
- Higher X-linking efficiency with a good X-linking agent dispersion to the benefit of lower X-linking agent content
- Suitable melt index and density for easy dispersion in most of polyethylenes
- Excellent flake morphology with high diameter and low fines content: free flowing powder induces a good extruder feeding and a good dispersion in the barrel
- Higher output and productivity
- High bulk density to the benefit of easy handling and transfer of the powder

Applications

ELTEX® PF6160AP represents an interesting balance of properties for applications as liquids carrier in reactive processing.

- Carrier for color concentrates, master-batches
- Crosslinked Wire & Cable insulation
- Textile coating
- Hot & Cold PEX Pipe

Properties	Conditions	Test Methods	Values	Units
Physical				
Melt Flow Rate	190°C/2.16kg	ISO 1133-1	5.5	g/10min
Density		ISO 1183-1 & ISO 1872-1	916	kg/m³
Electrical				
Volume Resistivity		ASTM D 257	$>10^{16}$	Ω.cm
Dielectric constant	50 Hz	ASTM D 150	2.2	-
Dissipation factor	50 Hz	ASTM D 150	< 0.003	-
Thermal				
Melting Point	DSC	ISO 11357-3	103 & 116	°C

Data should not be used for specification work

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Processing guidelines

A suitable antioxidant package should be added to meet heat ageing requirements.

Storage

The product should be stored in a dry and dust free environment at temperature below 50°C. Exposure to direct sunlight should be avoided as this may lead to product deterioration. It is advised to process the product within maximum six months after delivery.