

TRIOLUX PA

HIGH PERFORMANCE POLYMER ADDITIVE

S. Chems & Allied Producers P Ltd (SCAPL)
Elastomeric Division

Triolux PA is a blend of a group of Ethylene co-polymers with very high level of co-monomer content & Polyester based TPE; a halogen free compound. The melt viscosity of Triolux PA is designed in such a way that it creates a sufficient share during blending/compounding. It is very stable against heat & weathering. Under fire does not give much of smoke & free of toxic gases. It has got very high flex-fatigue resistance.

The presence of the elastomeric phase in Triolux PA helps in absorption of high levels of FR fillers with better dispersions in various compounds for versatile applications. Better stability of mechanical performance over a wide range of temperatures; it typically enhances the impact strength at low temperature.

The exceptional structure of the polymer blend allows the product to disperse as discrete particles in the matrix for modification of PA as well as engineering plastics.

Benefits

- Triolux PA is a very effective modifier for Nylon to improve impact strength
- Higher dose level can impart the flexibility to Nylon 6 & 66
- Improves the surface finish of filled Nylon component
- Improves the melt strength of Nylon & consequently helps in Nylon extrusion
- A dose level of 10-30 % can be tried depending upon the applications

Application

- Filled Nylon moulded items for Railways, defence, furniture, white goods
- Halogen free outer jacketing of power cable for better heat & oil resistance
- Outer jacketing for OFC cable
- Flexible Pneumatic hoses
- Flexible mandrel
- As a part or full replacement of Nylon 12 for automotive fuel, brake hose, etc.

MODIFICATION OF NYLON AND OTHER ENGINEERING PLASTICS.

TRIOLUX PA CAN ALSO REPLACE EXPENSIVE HIGH END ENGINEERING PLASTICS IN CERTAIN APPLICATIONS.





Physical Properties

Property	Test Method	Value
MFI 190°C, 2.16 kg	ASTM D 1238	7.56 g/10min
Hardness, Shore D	ASTM D 2240	33-34
Hardness, Shore A	ASTM D 2240	75-80
Tensile Impact Strength	ASTM D 1822	230 KJ/m ²
Elongation	ASTM D 638	300%
Brittleness	ASTM D 746-13	-95 °C
Tensile Strength	ASTM D 638	80 kg/cm ³
Moulding Shrinkage	ASTM D 955	0.2 %
Density	ASTM D 792	1.35 g/cm ³

Comparison of Properties

Property	Test Method (ASTM)	PA 6 Resin (R.P.)	Modified @ 10% Triolux PA
Density g/cm ³	D 792	1.13	1.18
Hardness Shore D	D 2240	70	65-67
Tensile Strength MPa	D 638	42	40-45
Elongation %	D 638	30	35
Deflection Temperature, °C	D 648		
	0.45 MPa	155	155
	1.80 MPa	60	60
Melting Point °C	D 2117	226	226
Flexural Strength MPa	D 790	2600	2200-2500
Notched Izod Impact Strength J/m	D 256	40	65-75

Dosage: 7-10 % for very good level of impact strength.

Packaging: Triolux PA grades are supplied in 20 kg bags.

Storage: Triolux PA should be stored in an adequately ventilated area where it will not be subjected to sunlight or temperatures in excess of 30 °C. Under these conditions it has a shelf life of at least 8 months.

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