

TECHNICAL INFORMATION



HF 427/UV

August 2014

THERMOPLASTIC HALOGEN FREE, FLAME RETARDANT AND LOW SMOKE EMISSION COMPOUND, FOR CABLE INSULATION AND SHEATING

Description

HF 427/UV is a UV resistant thermoplastic, flame retardant, and halogen free compound on polyolefinic basis for sheathing applications of cable having large diameters. It can be used for the production of energy, signal and control cables.

The properties of this compound comply with the requirements of EN 50363-0 type M1, IEC 60502 ST8, VDE 0207 Part 24 type HM2-HM4, BS 7655 type LTS1-LTS2-LTS3-LTS4, EN 50290-2-27, UNE 21123-4:2010 - ANNEX A-Table1 type DMZ-E.

Technical characteristics

Property	Test method	Unit	Typical Value
Density	ISO 1183	g/cm ³	1.48
Hardness at 15"	ISO 868	Shore D	49
Tensile strength	ISO 527	N/mm ²	13.0
Elongation at break	ISO 527	%	220
Oxygen Index	ISO 4589	% O ₂	35
Hot pressure test at 90 °C	IEC 60811	%	< 50
Melt Flow Index (150 °C/21.6Kg)	ISO 1133	g/10 min	4.0
Volume Resistivity 20 °C (Alternating Polarity Method)	ASTM D257 Electrodes	Ω·cm	5 · 10 ¹⁵
Water absorption	IEC 60811	mg/cm ²	< 5.0
Emission of Halogenidric acids	EN 50267-2-1/IEC 60754-1	%	< 0.5
pH	EN 50267-2-2/IEC 60754-2		> 4.3
Conductivity	EN 50267-2-2/IEC 60754-2	μS/mm	< 10
Tear strength (500 mm/min)	BS 6469 99.1	N/mm	9.0
Tear strength 65 °C(500 mm/min)	BS 6469 99.1	N/mm	5.0

The typical values reported in the table have been obtained from measurements made on extruded samples or pressed plates

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Processing

This thermoplastic compound has been designed for an easy processing, whilst maintaining good mechanical-thermal properties, and a medium-high LOI value. It can be processed using extruders with a low screw compression ratio (halogen free or PVC type), and with a temperature profile as that given below, which is however indicative, as it may depend on the equipment design adopted.

Zone 1	Zone 2	Zone 3	Zone 4	Collar	Head	Die
145 - 155	155 - 160	160 - 165	160 - 165	165 - 170	165 - 170	170 - 175

Storage

The thermoplastic compound must be stored at ambient temperature (not exceeding 30°C) in closed and unbroken bags, in order to avoid exposure to sunlight and moisture. Long stocking time may negatively affect the quality of the material. Therefore it shall be used within 3 months from the compounding date. After this time it's necessary to dry the material before extrusion.

Packaging

Available in 25 Kg PE bags, big bags or oktabins of 1250 Kg on wooden pallet
Our technical service is at your disposal, for further information and assistance.

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