

TECHNICAL INFORMATION



HF 417

October 2009

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

Description

HAX HF 417 is a thermoplastic flame retardant and halogen free compound, made on polyolefinic basis. It can be used for the production of energy, signal and control cables.

The properties of this compound comply with the requirements of VDE 0207 Part 24 type HM2 & HM4 and BS 7655 type LTS1 & LTS2.

Technical characteristics:

Property	Test method	Unit	Typical Value
Density	ISO 1183	gr/cc	1.50
Hardness at 15"	ISO 868	Shore D	50
Tensile strength	ISO 527	N/mm ²	12.0
Elongation at break	ISO 527	%	180
Oxygen Index	ISO 4589	% O ₂	38
Hot pressure test at 90°C	IEC 60811	%	< 50
Melt Flow Index (21.6Kg AT 150°C)	ISO 1133	gr/10 min	6.0
Water absorption	IEC 60811	mg/cm ²	< 5.0
Emission of Halogenidric acids	EN 50267-2-1	%	< 0.5
Volume Resistivity 20°C (Alternating Polarity Method)	ASTM D257 Electrodes	Ωcm	1 x 10 ¹⁵

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

Processing

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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
130 - 150	130 - 160	140 - 160	140 - 160	150 - 165	150 - 165	150 - 170

The tubing ($DDR \leq 1.5$) or semi-compression tools are recommended for the extrusion of HF 417 as sheathing material, whilst compression tools are preferable for the processing of this material as insulation layer.

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 water absorption. Long stocking time may negatively affect the quality of the material.

Therefore it is preferable to use it within 6 months from the compounding date.

Packaging

HAX HF 417 is available in 25 Kg PE bags, big bags or octabins of 1250 Kg.

Our technical service is at your disposal, for further information and assistance.

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