

TECHNICAL INFORMATION



HF 039/4H

September 2022

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

Description

HF 039/4H is a thermoplastic, flame retardant, and halogen free compound 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, EN 50363-8 type TM7, EN 50363-7 type TI6.

Technical characteristics

Property	Test method	Unit	Typical Value
Density	ISO 1183	g/cm ³	1,38
Hardness at 15"	ISO 868	Shore D	41
Tensile strength	ISO 527	N/mm ²	11
Elongation at break	ISO 527	%	260
Oxygen Index	ISO 4589	% O ₂	34
Hot pressure test at 80 °C	IEC 60811	%	< 50
Melt Flow Index (150 °C/21.6Kg)	ISO 1133	g/10 min	13.0
Volume Resistivity 20 °C (Alternating Polarity Method)	ASTM D257 Electrodes	Ω·cm	1 · 10¹⁵
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	< 2.5

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 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

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 oktubins of 1250 Kg on wooden pallet

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

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