

NHFR 3945

Halogenfree flame retardant compound for jacketing of low and medium voltage wires and cables.

Compound properties

Compound NHFR 3945 is a halogenfree, non corrosive, flame-retarded compound offering excellent processing performance. The compound shows good flame-retardancy. This performance combined with the good mechanical, physical and thermal properties makes this compound an ideal choice for non halogen, low smoke jacketing of wires and cables in the telecommunication, signal, data and energy market for low voltage and medium voltage applications.

The compound shows low emission of smoke and toxic gases in case of a fire.
Complies with VDE 0207 part 24 HM 2, BS 6724, NBN-IEC 502 NAD G1, CEI 20-11 M1.

Property	Test method	Unit	Value (*)
Density (23°C)	ISO 1183	g/cm ³	1.53
Oxygen index	ISO R 4589	%	45
Tensile strength at yield	ISO 6239	kg/cm ²	110
Elongation at break	ISO 6239	%	140
Hardness Shore D	ISO 868	Shore D	55
Tensile strength at yield change (after 7 days,100°C)	ISO 6239	%	+ 20
Elongation at break change (after 7 days,100°C)	ISO 6239	%	- 20
Hot pressure Test (80°C)	IEC 811-3-1	%	< 50
Halogen content	IEC 754-1	%	0
pH - value	CEI EN 50267	.	4.8
Volume resistivity	IEC 60167	Ohm cm	10 ¹⁴
Conductivity	IEC 754-2	μ S/mm	0.9
Water absorption after 72h 70°C	IEC 811-1-3	mg/ cm ²	1.6
Dielectric constant @ 50 Hz	IEC 60250	.	3.6

(*) : Typical value.

Processing information:

NHFR 3945 can be processed using a 20-25 L/D extruder having a low compression screw. PVC screws can be used as well.

Following extrusions temperature profile is recommended:

Hopper:	120 °C
Metering:	130 °C
Head:	140 °C
Max. temp:	150 °C

A higher temperature profile can be selected as well for increased outputs. Mass temperatures above 180 C should be avoided.

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