Lucofin® 7440 HFFR

Polyolefin

Lucobit AG

Message:

Product description
Lucofin® 7440 HFFR is a thermoplastic, halogen free flame retardant and low smoke compound for the insulation and/or sheating of cables. Lucofin® 7440 HFFR combines good extrusion properties with flame retardancy.
The properties of Lucofin® 7440 HFFR are in compliance with VDE 0207 part 24(HM 2/4), VDE 0207 part 23 (HJ2), BS 6724 as well as other power and telecom standards.
Applications and markets
Target markets include -among others- power and telecom cables as well as construction and optical fiber cables. Lucofin® 7440 HFFR is designed in order to avoid both smoke and corrosive gases in case of a fire. Cables in trains, ships, tunnels, office buildings, public houses and off-shore installations are only some examples.
Due to its low water absorption, excellent low temperature properties and good ageing resistance Lucofin® 7440 HFFR is specifically suited for the following applications:
Cables in wet areas
Ships and marine
Outdoor
Channels
Off-shore
Cables in cold areas
Regions with harsh winters
Refrigerated rooms
Outdoor
Snowy/icy conditions
Cables in hot areas
Regions with long summers
Outdoor
Areas at elevated temperatures
Long life time required
Packaging
Granules in 25 kg bags

General Information	
Additive	Flame retardancy
Features	Low smoke Halogen-free Flame retardancy
Uses	Cable sheath Optical fiber cable Insulation shield Communication Equipment
Agency Ratings	BS 6724 VDE 207 part 23 (HJ2) VDE 207 part 24(HM 2/4)
Processing Method	Extrusion

Physical	Nominal Value	Unit	Test Method
Density	1.44	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (150°C/21.6 kg)	6.5	g/10 min	ISO 1133
Water Absorption [1] (70°C)	0.500	mg/cm²	IEC 60811-1-3
pH	6.0		
Elongation at break-variation from original [2] (70°C)	-3.0	%	
Tensile strength-variation from original [3] (70°C)	-11	%	
Tensile strength retention rate	94	%	BS 6724
Elongation retention rate-at break	97	%	BS 6724
Cold Elongation	120	%	IEC 60811-1-4
Hot pressing test [4] (90°C)	10	%	IEC 60811-3-1
Conductivity	3.20	μS/cm	
Halogen Content		mg/g	IEC 754-1
Toxicity	2.80		EN 50305
Mooney Viscosity (ML 1+4, 140°C)	40	MU	ASTM D792
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness (Shore D)	52		ISO 868
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress			IEC 60811-1-1
--	11.5	MPa	IEC 60811-1-1
110°C [5]	10.8	MPa	IEC 60811-1-1
Tensile Strain			IEC 60811-1-1
Fracture	190	%	IEC 60811-1-1
Fracture, 110°C [6]	160	%	IEC 60811-1-1
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity			IEC 60093
-- [7]	1.7E+14	ohms	IEC 60093
-- [8]	4.1E+14	ohms	IEC 60093
Volume Resistivity			IEC 60093
-- [9]	6.9E+14	ohms·cm	IEC 60093
70°C [10]	2.1E+14	ohms·cm	IEC 60093
Dielectric Constant			IEC 60250
50 Hz [11]	3.60		IEC 60250
20°C, 50 Hz [12]	5.30		IEC 60250
Dissipation Factor			IEC 60250
50 Hz [13]	7.4E-3		IEC 60250
20°C, 50 Hz [14]	0.064		IEC 60250
Flammability	**Nominal Value**	**Unit**	**Test Method**
Oxygen Index	38	%	ISO 4589-2
Extrusion	**Nominal Value**	**Unit**	

Cylinder Zone 1 Temp.	135	°C
Cylinder Zone 2 Temp.	150	°C
Cylinder Zone 3 Temp.	165	°C
Cylinder Zone 4 Temp.	175	°C
Cylinder Zone 5 Temp.	190	°C
Melt Temperature	200 - 220	°C
Die Temperature	200	°C

NOTE	
1.	10 days
2.	Oil Ageing IRM 902, 4 h
3.	Oil Ageing IRM 902, 4 h
4.	4 hours
5.	Aged 7 days
6.	Aged 7 days
7.	70°C, 7 days duration of water immersion
8.	0 h duration of water immersion
9.	0 h duration of water immersion
10.	7 days duration of water immersion
11.	0 h duration of water immersion
12.	24 h duration of water immersion
13.	0 h duration of water immersion
14.	24 h duration of water immersion

Recommended distributors for this material

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