TECHNICAL INFORMATION

Cogegum® AFR/765

HFFR

padanaplast®
EXCELLENCE IN COMPOUNDING

Product description

Polyolefin based thermoplastic compound containing a fire retardant system that contributes to give the cable self-extinguish properties without halogenidric acids evolution; furthermore, toxic and corrosive gases emission and smoke generation are particularly reduced. These characteristics make this compound suitable in all applications where the fire behavior of cable materials is one of the main concerns to be considered in establishing a high safety level in public places.

Application: W&C insulation and sheathing

Standard complying

EN 50363-0 M1; EN 50363-7 TI7; IEC 60502-1 ST8; VDE 0207 HM2, HM 4, HM5 and HJ2; BS 7655 LTS2; IEC 60092 SHF1; UNE 21123-4.

Burning behavior to be assessed accordingly to performances required by specific cable construction

Availability

Africa & Middle East, Asia Pacific, Europe, Latin America

Verify commercial availability and registration status in each country with local sales representative

Typical properties(1)	nominal value	unit	test method
Physical			
Density at 23°C	1.52	g/cm^3	ASTM D792
Melt Flow Index, 150°C/21.6 kg	5.1	g/10'	internal method
Water adsorption, 24 hours at 100°C	2.20	g/cm^2	EN 60811
Hardness, Shore D	53	-	ISO 868
Mechanical			
Tensile Strength at break	12.5	MPa	EN 60811
Tensile Elongation at break	200	%	
Thermal			
Hot Pressure Test at 90°C/K=0.6, max. penetration	<50	%	EN 60811
Bending Test at -25°C	Pass	-	EN 60811
Cold impact at -25°C	Pass	-	EN 60811
Heat shock at 150°C	Pass	-	EN 60811
Ageing			
Mechanical properties after ageing in Air Oven, 110°C/168 hours			
change in Tensile Strength	+2	%	EN 60811
change in Tensile Elongation	-15	%	

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	nominal value	unit	test method
Chemical resistance			
SAE 20 Oil Immersion Test, 70°C/ 4 hours			
change in Tensile Strength	-12	%	EN 60811
change in Tensile Elongation	+1	%	
Environmental Stress Cracking Resistance Condition A, 50°C, 3.00 mm, 10% Igepal	>1000	hours	ASTM D1693
Electrical			
Volume Resistivity at 20°C	2.2 E+14	Ω x cm	IEC 60502
Volume Resistivity at 70°C	2.6 E+12	Ω x cm	
Insulation Resistance Constant at 20°C	800	MΩ x km	IEC 60502
Insulation Resistance Constant at 70°C	10	MΩ x km	
Burning properties			
Limiting Oxygen Index	39	%	ASTM D2863
Temperature Index	300	°C	NES 715
Calorific Potential, upper (gross)	15.7	MJ/kg	ISO 1716
Corrosive Gas in Smoke			
conductivity	< 2.5	µS/mm	IEC 60754-2
pH	> 4.3	-	
Halogenidric Acid Emission	< 0.1	%	IEC 60754-1

Notes:

(1) Typical properties are not to be construed as specification. Tests reported are performed on pressed or extruded specimens.

Additional information

The product must be stored under the following conditions:
- closed and undamaged bags
- ambient temperature not exceeding 30°C
- avoid direct exposure to sunlight and weathering

Product alterations could occur due to extended period of storage; shelf life: 12 months

Padanaplast S.r.l accepts no liability of any kind in case the above mentioned conditions are not fulfilled

Packaging
- 25 kg moisture-resistant bags on 1375 kg pallet
- 1000 kg carton box

Processing information

Extruder temperature setting:	
barrel zone 1	130 to 150 °C
barrel zone 2	130 to 160 °C
barrel zone 3	140 to 160 °C
barrel zone 4	140 to 160 °C
collar	150 to 170 °C
crosshead	150 to 170 °C
die	150 to 180 °C

Extrusion notes:

Extrusion equipment
- standard extruders for thermoplastics equipped with low compression screw (1.2÷1.4 compression ratio and 25 L/D ratio) are suggested
- don't use screw thermoregulation
- filter net: normally not necessary
- compression or semi-compression tools are suggested; if tubing tools must be used, D.D.R. should not exceed 1.5

Coloring
- EVA or PE based color masterbatches added at 1.2-1.5% by weight are suggested.

Safety Data Sheets (SDS) are available by emailing us or contacting your sales representative. Always consult the appropriate SDS before using any of our products.

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