

## Solvay Specialty Polymers Cogegum<sup>®</sup> AFR/760 Polyolefin

Category : Polymer , Thermoplastic , Polyolefin

### Material Notes:

Cogegum<sup>®</sup> HFFR -Halogen Free Fire Retardant compound. 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. This material complies with RoHS requirements. Features: Flame Retardant; Halogen Free; Low Smoke Emission; Low Toxicity; Self Extinguishing Uses: Cable Jacketing; Low Voltage Insulation; Wire & Cable Applications Extrusion equipment: standard extruders for thermoplastics equipped with low compression screw (1:1.2-1.4 compression ratio and 20-25 L/D ratio are suggested), and an adequate barrel thermoregulation. Additional Properties: Bending Test - IEC 60811 (-25<sup>°</sup>C): Pass; Calorific Potential - ISO 1716 15.6 MJ/kg; Cold Impact - IEC 60811 (-25<sup>°</sup>C): Pass; Collar Temperature - 150 to 170 <sup>°</sup>C; Corrosive Gas in Smoke - IEC 60754-2 < 10.0  $\mu$ S/mm; Corrosive Gas in Smoke - IEC 60754-2 > 4.30; Halogenidric Acid Emissions - IEC 60754-1 < 0.10 %; Head Temperature - 150 to 170 <sup>°</sup>C; Heat Shock - IEC 60811 (150<sup>°</sup>C): Pass; Hot Pressure Test - IEC 60811 (80<sup>°</sup>C): < 50 %; Insulation Resistance Constant - IEC 60502 (20<sup>°</sup>C): 400 Mohm $\cdot$ km; Insulation Resistance Constant - IEC 60502 (70<sup>°</sup>C): 2.0 Mohm $\cdot$ km; Temperature Index (Burning) - NES 715 300 <sup>°</sup>C; Water Absorption - IEC 60811 (100<sup>°</sup>C): 3.50 mg/cm<sup>2</sup> Information provided by Solvay Specialty Polymers.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Solvay-Specialty-Polymers-Cogegum-AFR760-Polyolefin.php](http://www.lookpolymers.com/polymer_Solvay-Specialty-Polymers-Cogegum-AFR760-Polyolefin.php)

Physical Properties	Metric	English	Comments
Density	1.51 g/cc	0.0546 lb/in <sup>3</sup>	ASTM D792
Environmental Stress Crack Resistance	>= 1000 hour @Thickness 3.00 mm, Temperature 50.0 <sup>°</sup> C	>= 1000 hour @Thickness 0.118 in, Temperature 122 <sup>°</sup> F	Condition A, Compression Molded, 10% Igepal; ASTM D1693
Melt Flow	2.7 g/10 min @Load 21.6 kg, Temperature 150 <sup>°</sup> C	2.7 g/10 min @Load 47.6 lb, Temperature 302 <sup>°</sup> F	ASTM D1238

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	51	51	ISO 868
Tensile Strength at Break	12.3 MPa	1780 psi	ASTM D638
Elongation at Break	200 %	200 %	ASTM D638

Thermal Properties	Metric	English	Comments
Oxygen Index	39 %	39 %	ASTM D2863

Electrical Properties	Metric	English	Comments
Volume Resistivity	5.50e+11 ohm-cm	5.50e+11 ohm-cm	ASTM D257
	@Temperature 70.0 Â°C	@Temperature 158 Â°F	
	1.10e+14 ohm-cm	1.10e+14 ohm-cm	ASTM D257
	@Temperature 20.0 Â°C	@Temperature 68.0 Â°F	

Processing Properties	Metric	English	Comments
Zone 1	130 - 150 Â°C	266 - 302 Â°F	
Zone 2	130 - 160 Â°C	266 - 320 Â°F	
Zone 3	140 - 160 Â°C	284 - 320 Â°F	
Zone 4	140 - 160 Â°C	284 - 320 Â°F	
Die Cooling Temperature	150 - 180 Â°C	302 - 356 Â°F	

Descriptive Properties	Value	Comments
Availability	Asia Pacific	
	Europe	
	North America	
RoHS Compliance	RoHS Compliant	

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