

COPEnhance™ 5511HS FR V0

Material Notes: Flame retardant 55 Shore D High Performance Polyester Elastomer with enhanced stability.

Application: Cable & Wire Jackets, Insulation, Hose & Tubing, Sheet

CAS: 37282-12-5

Physical Properties	Metric	English	Comments (Standards/Test Method?)
Specific Gravity	1.21 g/cc	1.21 g/cc	ASTM D792
Water Absorption	0.6% @Temperature 23.0 °C, Time 86400 sec	0.6% @Temperature 73.4 °F, Time 24.0 hour	ASTM D570
Max Moisture Content			
- Injection Molding	0.01	0.01	
- Extrusion Molding	0.01	0.01	
Linear Mold Shrinkage, Flow	0.010 - 0.014 cm/cm @Thickness 3.20 mm	0.010 - 0.014 in/in @Thickness 0.126 in	ASTM D955
Melt Flow	14 g/10 min @Load 2.16 kg, Temperature 230 °C	14 g/10 min @Load 4.76 lb, Temperature 446 °F	ASTM D1238
Mechanical Properties	Metric	English	Comments
Hardness, Shore D	52	52	ASTM D2240
Tensile Strength at Break	34.3 MPa, @Thickness 2.00 mm	4970 psi @Thickness 0.0787 in	50 mm/min; ASTM D638
Elongation at Break	550%, @Thickness 2.00 mm	550%, @Thickness 0.0787 in	50 mm/min; ASTM D638
Flexural Modulus	0.167 GPa @Thickness 6.40 mm	24.2 ksi @Thickness 0.252 in	15mm/min; ASTM D790
Izod Impact, Notched	1.96 J/cm @Thickness 6.40 mm, Temperature -40.0 °C	3.67 ft-lb/in Temperature -40.0 °C, Temperature -40.0 °F	ASTM D256
	NB @Thickness 6.40 mm, Temperature 23.0 °C	NB @Thickness 0.252 in, Temperature 73.4 °F	ASTM D256
Tear Strength	147 kN/m	840 psi/in	ASTM D624 50 mm/min, at Break
Electrical Properties	Metric	English	Comments
Volume Resistivity	>= 1.00e+13 ohm-cm	>= 1.00e+13 ohm-cm	ASTM D257
Dielectric Strength	26.0 kV/mm @Thickness 1.00 mm	660 kV/in @Thickness 0.0394 in	ASTM D149
Comparative Tracking Index	600 V	600 V	Solution A; IEC 60112

Thermal Properties	Metric	English	Comments/Standard
Melting Point	200 °C	392 °F	Peak
Boiling Point	140 - 230 °C	284 - 446 °F	
Deflection Temperature at 0.46 MPa (66 psi)	90 °C @Thickness 6.40 mm	194 °F @Thickness 0.252 in	Unannealed; ASTM D648
Flash Point	300 - 340 °C	572 - 644 °F	
Flammability	Metric	English	Comments
UL 95 V0	Pass @ 1.5mm	Pass @ 1/16mm	UL 94
Processing Properties	Metric	English	Comments
Rear Barrel Temperature	220 - 240 °C	428 - 464 °F	Injection Molding
Middle Barrel Temperature	210 - 230 °C	410 - 446 °F	Injection Molding
Front Barrel Temperature	220 - 240 °C	428 - 464 °F	Injection Molding
Nozzle Temperature	220 - 240 °C	428 - 464 °F	Injection Molding
Zone 1	200- 220 °C	392 - 428°F	Extrusion Molding
Zone 2	210- 230 °C	410 - 446 °F	Extrusion Molding
Zone 3	215 - 235 °C	419 - 455 °F	Extrusion Molding
Zone 4	220 - 240 °C	428 - 464 °F	Extrusion Molding
Adapter Temperature	220 - 240 °C	428 - 464 °F	Extrusion Molding
Die Temperature	210 - 230 °C	410 - 446 °F	Extrusion Molding
Melt Temperature	200- 240 °C	392 - 464 °F	Injection Molding
	200 - 240 °C	392 - 464 °F	Extrusion Molding
Mold Temperature	20.0 - 40.0 °C	104 - 140 °F	Injection Molding
Drying Temperature	80.0 - 90.0 °C	176 - 194 °F	Injection Molding
	80.0 - 90.0 °C	176 - 194 °F	Extrusion Molding
Dry Time	3.00 - 4.00 hour	3.00 - 4.00 hour	Injection Molding
	3.00 - 4.00 hour	3.00 - 4.00 hour	Extrusion Molding