EMS-Grivory Grivory® ELG 5930 natural Medium Viscosity Nylon 12 Dry (Unverified Data**)

Categories: Polymer; Thermoplastic; Nylon (Polyamide PA); Nylon 12 (PA12); Nylon 12, Extrusion/Tubing Grade

Material Notes:

Grilflex stands for flexible and enduring polyamide high performance elastomers (PEBA)

Grilflex ELG 5930 natural is a medium viscosity polyamide elastomer based on polyamide 12. Grilflex ELG 5930 natural can be used for extrusion as well as injection moulding applications. The key properties of Grilflex ELG 5930 natural are:

- High flexibility
- Shore D hardness 59
- Exceptional toughness also at low temperatures
- Low density
- Very good transparency
- Low moisture absorption
- High chemical resistance
- Good hydrolysis resistance

Grilflex ELG 5930 natural can be used for hard-soft combinations with unreinforced or reinforced Grilamid grades.

Application Examples:

- Cable sheathing
- Seals
- Sport shoes
- Shells for ski boots
- Pneumatic tubes with increased burst pressure
- Medical applications

Information Provided by EMS-GRIVORY

Vendors: No vendors are listed for this material. Please click here if you are a supplier and would like information on how to add your listing to this material.

Physical Properties	Metric	English	Comments
Density	1.01 g/cc	0.0365 lb/in³	ISO 1183
Moisture Absorption at Equilibrium	0.50 % @Temperature 23.0 °C	0.50 % @Temperature 73.4 °F	50% R.H.; ISO 62
Water Absorption at Saturation	1.3 % @Temperature 23.0 °C	1.3 % @Temperature 73.4 °F	ISO 62
Linear Mold Shrinkage	0.0040 cm/cm	0.0040 in/in	ISO 294
Linear Mold Shrinkage, Transverse	0.0085 cm/cm	0.0085 in/in	ISO 294

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+13 ohm-cm	1.00e+13 ohm-cm	IEC 60093

Thermal Properties	Metric	English	Comments
CTE, linear	140 µm/m-°C @Temperature 23.0 - 55.0 °C	77.8 µin/in-°F @Temperature 73.4 - 131 °F	ISO 11359
CTE, linear, Transverse to Flow	150 µm/m-°C @Temperature 23.0 - 55.0 °C	83.3 µin/in-°F @Temperature 73.4 - 131 °F	ISO 11359
Melting Point	160 °C	320 °F	DSC; ISO 11357
Maximum Service Temperature, Air	80.0 - 100 °C 130 °C	176 - 212 °F 266 °F	long term; ISO 2578 short term; ISO 2578
Deflection Temperature at 0.46 MPa (66 psi)	55.0 °C	131 °F	ISO 75
Deflection Temperature at 1.8 MPa (264 psi)	45.0 °C	113 °F	ISO 75
Flammability, UL94	HB @Thickness 0.800 mm	HB @Thickness 0.0315 in	ISO 1210

Optical Properties	Metric	English	Comments
Transmission, Visible	90 % @Thickness 1.00 mm	90 % @Thickness 0.0394 in	ISO 1003

Processing Properties	Metric	English	Comments
Nozzle Temperature	240 °C	464 °F	
Zone 1	230 °C	446 °F	

Zone 2	240 °C	464 °F
Zone 3	240 °C	464 °F
Melt Temperature	230 - 250 °C	446 - 482 °F
Hold Pressure	40.0 - 60.0 MPa	5800 - 8700 psi

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