

EMS-Grivory Grilon® XE 5025 25% Mineral Reinforced Flame Retardant PA66 + PA6

Categories: [Polymer](#); [Thermoplastic](#); [Nylon](#); [Nylon 6/66](#); [Nylon 66/6](#), [Mineral Reinforced](#)

Material Grilon XE 5025 is a heat stabilized, 25% mineral reinforced flame retardant and

Notes: self-extinguishing injection moulding grade on the basis of a PA66-PA6-alloy.

Grilon XE 5025 features the following main properties:

- Good flowability
- Flame retardant system free of halogen compounds and elementary phosphorus
- UL 94 V-0 down to 0.8 mm thickness
- Good mechanical properties

Grilon XE 5025 complies with the regulations acc. to RoHS (2002/95/EC, Restriction of Hazardous Substances).

Parts made of Grilon XE 5025 are not affected by the demands for "selective recycling" acc. to guideline 2002/96/EC for Electro and Electronic Appliances (WEEE).

Grilon XE 5025 was developed for the production of parts in the field of electric and electronic equipment which require a flammability rating of V-0 acc. UL 94.

Information Provided by EMS-GRIVORY

Physical Properties	Metric	English	Comments
Density	<u>1.38</u> g/cc	<u>0.0499</u> lb/in ³	ISO 1183
Moisture	1.50 %	1.50 %	50% R.H.; ISO 62
Absorption at Equilibrium	@Temperature 23.0 °C	@Temperature 73.4 °F	
Water	4.00 %	4.00 %	ISO 62
Absorption at Saturation	@Temperature 23.0 °C	@Temperature 73.4 °F	
Linear Mold Shrinkage	<u>0.00700</u> cm/cm	<u>0.00700</u> in/in	ISO 294
Linear Mold Shrinkage, Transverse	<u>0.00850</u> cm/cm	<u>0.00850</u> in/in	ISO 294
Mechanical Properties	Metric	English	Comments
Ball Indentation Hardness	<u>250</u> MPa	<u>36300</u> psi	F _m = 961 N; ISO 2039-1

Tensile Strength at Break	<u>80.0</u> MPa	<u>11600</u> psi	50mm/min; ISO 527
Elongation at Break	2.50 %	2.50 %	50mm/min; ISO 527
Tensile Modulus	<u>6.70</u> GPa	<u>972</u> ksi	1 mm/min; ISO 527
Charpy Impact Unnotched	<u>3.00</u> J/cm ² @Temperature 23.0 °C	<u>14.3</u> ft-lb/in ² @Temperature 73.4 °F	ISO 179/1eU
	<u>3.00</u> J/cm ² @Temperature -30.0 °C	<u>14.3</u> ft-lb/in ² @Temperature -22.0 °F	ISO 179/1eU
Charpy Impact, Notched	<u>0.200</u> J/cm ² @Temperature 23.0 °C	<u>0.952</u> ft-lb/in ² @Temperature 73.4 °F	ISO 179/1eA
	<u>0.200</u> J/cm ² @Temperature -30.0 °C	<u>0.952</u> ft-lb/in ² @Temperature -22.0 °F	ISO 179/1eA

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

Thermal Properties	Metric	English	Comments
Melting Point	<u>260</u> °C	<u>500</u> °F	DSC; ISO 11357
Deflection Temperature at 1.8 MPa (264 psi)	<u>110</u> °C	<u>230</u> °F	ISO 75
Deflection Temperature at 8.0 MPa	<u>60.0</u> °C	<u>140</u> °F	ISO 75
Flammability, UL94	V-0	V-0	ISO 1210
	@Thickness 0.800 - 1.60 mm	@Thickness 0.0315 - 0.0630 in	
Glow Wire Test	<u>960</u> °C	<u>1760</u> °F	1.6 mm; IEC 60695-2-12

Processing Properties	Metric	English	Comments
Melt Temperature	<u>270 - 290</u> °C	<u>518 - 554</u> °F	
Hold Pressure	<u>30.0 - 80.0</u> MPa	<u>4350 - 11600</u> psi	