

**EMS-Grivory Grivory® A28NY Nylon 6, As Conditioned (Unverified Data\*\*)**

**Categories:** [Polymer](#); [Thermoplastic](#); [Nylon \(Polyamide PA\)](#); [Nylon 6 \(PA6\)](#)

**Material** Grilon A28NY is an unreinforced nylon 6 based formulation, modified to improve toughness and ductility, both dry-as-molded and at low temperatures. It provides outstanding toughness and flexibility over a broad range of temperatures with significant cost advantages over competing resins.

Like most nylons, Grilon A28NY offers excellent chemical, solvent and fuel resistance, wear and abrasion performance and electrical insulating properties. It exhibits excellent performance in dynamic applications where parts are subject to fatigue from cycling stress, exposure to temperature extremes and repeated impacts.

Grilon A28NY contains a unique stabilization package, resulting in excellent long-term stability and resistance to weathering.

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	<a href="#">1.08</a> g/cc	<a href="#">0.0390</a> lb/in <sup>3</sup>	ASTM D792
Water Absorption	1.0 %	1.0 %	24 hr immersion; ASTM D570
Moisture Absorption at Equilibrium	2.0 - 2.5 %	2.0 - 2.5 %	23°C / 50% RH; ASTM D570
Water Absorption at Saturation	8.0 %	8.0 %	23°C in water; ASTM D570
Linear Mold Shrinkage	<a href="#">0.010</a> cm/cm	<a href="#">0.010</a> in/in	EMS
Linear Mold Shrinkage, Transverse	<a href="#">0.0090</a> cm/cm	<a href="#">0.0090</a> in/in	EMS

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	65	65	
Tensile Strength at Break	<a href="#">34.0</a> MPa	<a href="#">4930</a> psi	ASTM D638
Elongation at Break	300 %	300 %	ASTM D638
Flexural Strength	<a href="#">24.0</a> MPa	<a href="#">3480</a> psi	ASTM D790
Flexural Modulus	<a href="#">0.689</a> GPa	<a href="#">99.9</a> ksi	ASTM D790
Izod Impact, Notched	NB	NB	ASTM D256

Electrical Properties	Metric	English	Comments
Volume Resistivity	<a href="#">1.00e+13</a> ohm-cm	<a href="#">1.00e+13</a> ohm-cm	DIN 53482
Dielectric Strength	<a href="#">35.0</a> kV/mm	<a href="#">889</a> kV/in	DIN 53481
Comparative Tracking Index	>= <a href="#">600</a> V	>= <a href="#">600</a> V	DIN 53480

Thermal Properties	Metric	English	Comments
CTE, linear	<a href="#">90.0 - 110</a> µm/m-°C	<a href="#">50.0 - 61.1</a> µm/in-°F	DIN 52328
	@Temperature 20.0 °C	@Temperature 68.0 °F	
Melting Point	<a href="#">220</a> °C	<a href="#">428</a> °F	DSC
Maximum Service Temperature, Air	<a href="#">80.0 - 110</a> °C	<a href="#">176 - 230</a> °F	Long Term; EMS
	<a href="#">150</a> °C	<a href="#">302</a> °F	Short Term; EMS
Deflection Temperature at 0.46 MPa (66 psi)	<a href="#">178</a> °C	<a href="#">352</a> °F	ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	<a href="#">56.0</a> °C	<a href="#">133</a> °F	ASTM D648

Processing Properties	Metric	English	Comments
Rear Barrel Temperature	<a href="#">245</a> °C	<a href="#">473</a> °F	Injection molding
Middle Barrel Temperature	<a href="#">250</a> °C	<a href="#">482</a> °F	Injection molding
Front Barrel Temperature	<a href="#">255</a> °C	<a href="#">491</a> °F	Injection molding
Nozzle Temperature	<a href="#">250</a> °C	<a href="#">482</a> °F	Injection molding
Melt Temperature	<a href="#">260</a> °C	<a href="#">500</a> °F	Injection molding
Mold Temperature	<a href="#">80.0 - 90.0</a> °C	<a href="#">176 - 194</a> °F	Injection molding
Drying Temperature	<a href="#">80.0</a> °C	<a href="#">176</a> °F	Circulating Air Oven
	<a href="#">80.0</a> °C	<a href="#">176</a> °F	Dehumidifying Dryer (dew point at -40°F)
	<a href="#">100</a> °C	<a href="#">212</a> °F	Vacuum Oven
Dry Time	<a href="#">4.00 - 16.0</a> hour	<a href="#">4.00 - 16.0</a> hour	Dehumidifying Dryer (dew point at -40°F)
	<a href="#">4 - 16</a> hour	<a href="#">4 - 16</a> hour	Vacuum Oven
	<a href="#">6 - 16</a> hour	<a href="#">6 - 16</a> hour	Circulating Air Oven

\*\*

This data sheet is not an active part of MatWeb and the information on it should not be considered reliable.

Inactive data sheets have usually been replaced with newer information on the same material. If this is the case, you can find the active data sheet by using any of our search tools, including the Quick Search box in the upper part of this page.

If you are unable to locate an active data sheet for this material, then this material is likely discontinued, although various other reasons may be behind its removal. In any event, do not rely on the information on this page to be accurate or maintained.

You may have reached this data sheet through an outdated bookmark or link. Please update your bookmark accordingly. We apologize if you have accessed this page through MatWeb's usual search tools.

Some of the values displayed above may have been converted from their original units and/or rounded in order to display the information in a consistent format. Users requiring more precise data for scientific or engineering calculations can click on the property value to see the original value as well as raw conversions to equivalent units. We advise that you only use the original value or one of its raw conversions in your calculations to minimize rounding error. We also ask that you refer to MatWeb's [terms of use](#) regarding this information. [Click here](#) to view all the property values for this datasheet as they were originally entered into MatWeb.