

**Grilamid XE 3841 nat**  
PA12

EMS-GRIVORY | a unit of EMS-CHEMIE AG

**Product Texts**

Product designation according to ISO 1874:  
PA 12-HI, EH; 18-005

Mechanical properties	dry / cond	Unit	Test Standard
Tensile Modulus	- / <b>350</b>	MPa	ISO 527-1/-2
Yield stress	- / <b>20</b>	MPa	ISO 527-1/-2
Yield strain	- / <b>15</b>	%	ISO 527-1/-2
Nominal strain at break	- / <b>&gt;50</b>	%	ISO 527-1/-2
Stress at break	- / <b>30</b>	MPa	ISO 527-1/-2
Charpy impact strength (+23°C)	- / <b>N</b>	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy impact strength (-30°C)	- / <b>N</b>	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength (+23°C)	- / <b>N</b>	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy notched impact strength (-30°C)	- / <b>N</b>	kJ/m <sup>2</sup>	ISO 179/1eA

Mechanical properties (TPE)	dry / cond	Unit	Test Standard
Shore D hardness (15s)	- / <b>53</b>	-	ISO 868

Thermal properties	dry / cond	Unit	Test Standard
Melting temperature (10°C/min)	<b>178 / -</b>	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	<b>40 / -</b>	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	<b>45 / -</b>	°C	ISO 75-1/-2
Coeff. of linear therm. expansion (parallel)	<b>100 / -</b>	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	<b>160 / -</b>	E-6/K	ISO 11359-1/-2
Burning Behav. at thickness h	<b>HB / -</b>	class	IEC 60695-11-10
Thickness tested	<b>0.8 / -</b>	mm	IEC 60695-11-10
Max. usage temperature (long term)	<b>80 - 100</b>	°C	ISO 2578
Max. usage temperature (short term)	<b>130</b>	°C	EMS

Electrical properties	dry / cond	Unit	Test Standard
Volume resistivity	- / <b>1E10</b>	Ohm*m	IEC 60093
Surface resistivity	- / <b>1E12</b>	Ohm	IEC 60093
Electric strength	- / <b>43</b>	kV/mm	IEC 60243-1
Comparative tracking index	- / <b>575</b>	-	IEC 60112

Other properties	dry / cond	Unit	Test Standard
Water absorption	<b>1.1 / -</b>	%	Sim. to ISO 62
Humidity absorption	<b>0.6 / -</b>	%	Sim. to ISO 62
Density	<b>990 / -</b>	kg/m <sup>3</sup>	ISO 1183

**Characteristics**

**Processing**

Other Extrusion

**Product Attributes**

Flexible

**Delivery form**

Granules

**Industry & Consumer goods**

Housewares, Hydraulics & Pneumatics, Mechanical Engineering

**Special Characteristics**

High impact or impact modified

**Food Contact**

EU Requirements

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#### Regional Availability

North America, Europe, Asia Pacific, South and Central America,  
Near East/Africa

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