VESTAMID® X7293

PA12-I | Evonik Operations GmbH

Product Texts

High viscosity, plasticized, impact modified, heat- and light-stabilized polyamide 12 compound

VESTAMID® X7293 NC is a plasticized polyamide 12 compound with heat and light stabilizer for the extrusion of flexible tubing and hose, especially for automotive applications according to DIN 73378, (PA 12-HIPHL, Type 1), ISO/DIN 7628-1 (PA 12-HIPEHL, Type 1) and SAE J844.

VESTAMID® X7293 NC is distinguished by an easy processing as well as by a high impact strength at low temperatures.

Properties of compounds based on PA 12 vary little with changing humidity due to low moisture absorption. Parts made of this semi-crystalline material are characterized by exceptional impact strength, low coefficient of friction and good chemical resistance.

VESTAMID® X7293 NC is supplied as cylindrical granules, ready for processing, in moisture-proof bags.

The use of colorants may affect property values.

Inside the original and undamaged packaging, the product has a shelf life of at least 2 years when stored in dry rooms at temperatures not exceeding 30°C.

The results shown have been generated from a low number of production lots. Therefore, they are preliminary and not yet the result of a statistical evaluation. Therefore they must not be used to establish specifications.

For information about processing of VESTAMID®, please follow the general commendations about "Processing of VESTAMID® compounds".

The values presented are typical or average values, they do not constitute a specification.

FOR FURTHER INFORMATION PLEASE CONTACT US AT EVONIK-HP@EVONIK.COM OR VISIT OUR PRODUCT AT WWW.VESTAMID.COM

Processing/Physical Characteristics	dry / cond	Unit	Test Standard
ISO Data			
[C] Melt volume-flow rate, MVR	**26 / ***	cm³/10min	ISO 1133
Temperature	**220 / ***	°C	-
Load	**10 / ***	kg	-
[C] Molding shrinkage, parallel	**0.7 / ***	%	ISO 294-4, 2577
[C] Molding shrinkage, normal	**1.4 / ***	%	ISO 294-4, 2577

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Tensile Modulus	**390 / -**	MPa	ISO 527
[C] Yield stress	**25 / -**	MPa	ISO 527
[C] Yield strain	**36 / -**	%	ISO 527
[C] Nominal strain at break	**>50 / -**	%	ISO 527
[C] Charpy impact strength, +23°C	**N / -**	kJ/m²	ISO 179/1eU
[C] Charpy impact strength, -30°C	**N / -**	kJ/m²	ISO 179/1eU
[C] Charpy notched impact strength, +23°C	**130 / -**	kJ/m²	ISO 179/1eA
[C] Charpy notched impact strength, -30°C	**7 / -**	kJ/m²	ISO 179/1eA
[C] Type of failure	**C / -**	-	-

[C]: CAMPUS

Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Melting temperature, 10°C/min	**172 / ***	°C	ISO 11357-1/-3
[C] Glass transition temperature, 10°C/min	**8 / ***	°C	ISO 11357-1/-2
[C] Temp. of deflection under load, 1.80 MPa	**45 / ***	°C	ISO 75-1/-2
[C] Temp. of deflection under load, 0.45 MPa	**100 / ***	°C	ISO 75-1/-2

[C] Vicat softening temperature, B	**130 / ***	°C	ISO 306
[C] Coeff. of linear therm. expansion, parallel	**180 / ***	E-6/K	ISO 11359-1/-2
[C] Coeff. of linear therm. expansion, normal	**180 / ***	E-6/K	ISO 11359-1/-2
[C] Burning Behav. at 1.5 mm nom. thickn.	**HB / ***	class	IEC 60695-11-10
Thickness tested	**1.6 / ***	mm	-

[C]: CAMPUS

Electrical properties	**dry / cond**	**Unit**	**Test Standard**
ISO Data			
[C] Relative permittivity, 100Hz	**11 / -**	-	IEC 62631-2-1
[C] Relative permittivity, 1MHz	**4.6 / -**	-	IEC 62631-2-1
[C] Dissipation factor, 100Hz	**2000 / -**	E-4	IEC 62631-2-1
[C] Dissipation factor, 1MHz	**1900 / -**	E-4	IEC 62631-2-1
[C] Volume resistivity	**1E10 / -**	Ohm*m	IEC 62631-3-1
[C] Comparative tracking index	**600 / -**	-	IEC 60112

[C]: CAMPUS

Other properties	**dry / cond**	**Unit**	**Test Standard**
[C] Humidity absorption	**0.7 / ***	%	Sim. to ISO 62
[C] Density	**1020 / -**	kg/m³	ISO 1183

[C]: CAMPUS

Test specimen production	**Value**	**Unit**	**Test Standard**
ISO Data			
[C] Injection Molding, melt temperature	**220**	°C	ISO 294
Injection Molding, mold temperature	**60**	°C	ISO 294
Injection Molding, injection velocity	**200**	mm/s	ISO 294
Injection Molding, pressure at hold	**70**	MPa	ISO 294

[C]: CAMPUS

Characteristics

Processing
Injection Molding, Pipe/Tube Extrusion, Profile Extrusion, Other Extrusion

Delivery form
Pellets, Natural Color

Additives
Lubricants, Plasticizer

Special Characteristics
High impact or impact modified, Light stabilized or stable to light, Heat stabilized or stable to heat

Features
Tribologic Grade

Chemical Resistance
General Chemical Resistance

Applications
Automotive

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