VESTAMID® L2123

PA12-I | Evonik Operations GmbH

Product Texts

High viscosity, plasticized PA12-resin

VESTAMID® L2123 NC is a plasticized and high-viscosity polyamide 12 compound for the extrusion of flexible tubing and hoses especially for automotive industry. Tubing according to DIN 73 378, Type: PA 12-PHL.

VESTAMID® L2123 NC is characterized by a high melt viscosity, optimized cold temperature impact resistance and good dimensional control during pipe extrusion.

Properties of compounds based on PA12 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.

Pigmentation may affect 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.

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	**160 / ***	cm³/10min	ISO 1133
Temperature	**230 / ***	°C	-
Load	**21.6 / ***	kg	-
[C] Molding shrinkage, parallel	**0.7 / ***	%	ISO 294-4, 2577
[C] Molding shrinkage, normal	**1.4 / ***	%	ISO 294-4, 2577
[C] Density of melt	**860**	kg/m³	-
[C] Spec. heat capacity of melt	**2900**	J/(kg K)	-

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Tensile Modulus	**395 / 370**	MPa	ISO 527
[C] Yield stress	**25 / 22**	MPa	ISO 527
[C] Yield strain	**32 / 31**	%	ISO 527
[C] Nominal strain at break	**>50 / >50**	%	ISO 527
[C] Tensile creep modulus, 1h	*** / 130**	MPa	ISO 899-1
[C] Tensile creep modulus, 1000h	*** / 100**	MPa	ISO 899-1
[C] Charpy impact strength, +23°C	**N / N**	kJ/m²	ISO 179/1eU
[C] Charpy impact strength, -30°C	**N / N**	kJ/m²	ISO 179/1eU
[C] Charpy notched impact strength, +23°C	**115 / N**	kJ/m²	ISO 179/1eA
[C] Charpy notched impact strength, -30°C	**13 / 8**	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	**171 / ***	°C	ISO 11357-1/-3

[C] Temp. of deflection under load, 1.80 MPa	**45 / ***	°C	ISO 75-1/-2
[C] Temp. of deflection under load, 0.45 MPa	**80 / ***	°C	ISO 75-1/-2
[C] Vicat softening temperature, B	**120 / ***	°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	**170 / ***	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	**10 / -**	-	IEC 62631-2-1
[C] Relative permittivity, 1MHz	**3.6 / -**	-	IEC 62631-2-1
[C] Dissipation factor, 100Hz	**2000 / -**	E-4	IEC 62631-2-1
[C] Dissipation factor, 1MHz	**1100 / -**	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	**0.6 / ***	%	Sim. to ISO 62
[C] Density	**1030 / -**	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, U.V. stabilized or stable to weather, 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