VESTAMID® L2170 OR E20005

PA12 Evonik Operations GmbH

Product Texts

High viscosity, heat- and light-stabilized polyamide 12 resin

VESTAMID® L2170 OR E20005 has been designed especially for the extrusion of cable sheathings, but it can be used advantageously also for the manufacture of semi-finished products like tubes, rods, sheets and profiles.

As a partially crystalline Polyamide 12, VESTAMID® L2170 OR E20005 exhibits a low coefficient of friction which eases the installation of cables in ducts. Sheathings made of VESTAMID® L2170 OR E20005 protect direct buried cables from attack by termites and rodents, due to their tough and smooth surface finish.

Because of low water absorption parts produced from VESTAMID® L2170 OR E20005 maintain their dimension in environments with varying humidity levels, while maintaining a high toughness, a low coefficient of friction and good chemical resistance.

VESTAMID® L2170 OR E20005 is supplied as cylindrical granules, ready for processing, in moisture-proof bags.

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	**3.4 / ***	cm³/10min	ISO 1133
Temperature	**230 / ***	°C	-
Load	**2.16 / ***	kg	-
[C] Molding shrinkage, parallel	**0.7 / ***	%	ISO 294-4, 2577
[C] Molding shrinkage, normal	**1.3 / ***	%	ISO 294-4, 2577

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Tensile Modulus	**1650 / -**	MPa	ISO 527
[C] Yield stress	**46 / -**	MPa	ISO 527
[C] Yield strain	**4 / -**	%	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	**6 / -**	kJ/m²	ISO 179/1eA
[C] Type of failure	**C / -**	-	-
[C] Charpy notched impact strength, -30°C	**7 / -**	kJ/m²	ISO 179/1eA
[C] Type of failure	**C / -**	-	-
[C] Shore D hardness	**72 / ***	-	ISO 7619-1

[C]: CAMPUS

Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Melting temperature, 10°C/min	**178 / ***	°C	ISO 11357-1/-3
[C] Glass transition temperature, 10°C/min	**44 / ***	°C	ISO 11357-1/-2

[C] Temp. of deflection under load, 1.80 MPa	**50 / ***	°C	ISO 75-1/-2
[C] Temp. of deflection under load, 0.45 MPa	**110 / ***	°C	ISO 75-1/-2
[C] Vicat softening temperature, B	**148 / ***	°C	ISO 306
[C] Burning Behav. at 1.5 mm nom. thickn.	**HB / ***	class	IEC 60695-11-10
Thickness tested	**1.5 / ***	mm	-
Yellow Card available	**yes / ***	-	-
[C] Burning Behav. at thickness h	**HB / ***	class	IEC 60695-11-10
Thickness tested	**3.0 / ***	mm	-
Yellow Card available	**yes / ***	-	-
[C] Oxygen index	**24 / ***	%	ISO 4589-1/-2

[C]: CAMPUS

Electrical properties	**dry / cond**	**Unit**	**Test Standard**
ISO Data			
[C] Relative permittivity, 100Hz	**4.1 / -**	-	IEC 62631-2-1
[C] Relative permittivity, 1MHz	**3 / -**	-	IEC 62631-2-1
[C] Dissipation factor, 100Hz	**700 / -**	E-4	IEC 62631-2-1
[C] Dissipation factor, 1MHz	**353 / -**	E-4	IEC 62631-2-1
[C] Volume resistivity	**9.2E12 / -**	Ohm*m	IEC 62631-3-1
[C] Comparative tracking index	**600 / -**	-	IEC 60112

[C]: CAMPUS

Other properties	**dry / cond**	**Unit**	**Test Standard**
[C] Water absorption	**1.6 / ***	%	Sim. to ISO 62
[C] Humidity absorption	**0.8 / ***	%	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	**240**	°C	ISO 294
Injection Molding, mold temperature	**60**	°C	ISO 294
Injection Molding, injection velocity	**200**	mm/s	ISO 294

[C]: CAMPUS

Characteristics

Processing
Injection Molding, Pipe/Tube Extrusion, Profile Extrusion, Sheet Extrusion, Wire/Cable Extrusion

Delivery form
Pellets

Special Characteristics
Light stabilized or stable to light, Heat stabilized or stable to heat

Features
Tribologic Grade

Chemical Resistance
General Chemical Resistance

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