Product Information

VESTAMID® L2170 OR E20005

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

Mechanical properties ISO	dry / cond	Unit	Test Standard
Tensile Modulus	**1650 / -**	MPa	ISO 527
Tensile Strength	**46 / -**	MPa	ISO 527
Yield stress	**46 / -**	MPa	ISO 527
Yield strain	**4 / -**	%	ISO 527
Stress at 50% strain	**36 / -**	MPa	ISO 527
Stress at break	**55 / -**	MPa	ISO 527
Nominal strain at break, εtB	**240 / -**	%	ISO 527
Charpy impact strength, +23°C	**N / -**	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C	**N / -**	kJ/m²	ISO 179/1eU
Charpy notched impact strength, +23°C	**6 / -**	kJ/m²	ISO 179/1eA

EVONIK Leading Beyond Chemistry

Type of failure	**C / -**	-	-
Charpy notched impact strength, -30°C	**7 / -**	kJ/m²	ISO 179/1eA
Type of failure	**C / -**	-	-
Flexural modulus, 23°C	**1570 / -**	MPa	ISO 178
Flexural stress at conv. deflection, 23°C	**52 / -**	MPa	ISO 178
Flexural strain at flexural strength, 23°C	**6.5 / -**	%	ISO 178
Flexural stress at break, 23°C	**N / -**	MPa	ISO 178
Flexural strain at break, 23°C	**N / -**	%	ISO 178

Thermal properties	**dry / cond**	**Unit**	**Test Standard**
Melting temperature	**178 / ***	°C	ISO 11357-1/-3
Glass transition temperature	**44 / ***	°C	ISO 11357-1/-2
Temp. of deflection under load A, 1.80 MPa	**50 / ***	°C	ISO 75-1/-2
Temp. of deflection under load B, 0.45 MPa	**110 / ***	°C	ISO 75-1/-2
Vicat softening temperature A, 10 N, 50 K/h	**175 / ***	°C	ISO 306
Vicat softening temperature B, 50 N, 50 K/h	**148 / ***	°C	ISO 306
Melting Temperature	**178**	°C	ASTM D 3418

Physical properties	**dry / cond**	**Unit**	**Test Standard**
Water absorption	**1.6 / ***	%	Sim. to ISO 62
Humidity absorption	**0.8 / ***	%	Sim. to ISO 62
Density	**1020 / -**	kg/m³	ISO 1183
Density	**1020**	kg/m³	ASTM D 792

Burning Behav.	**dry / cond**	**Unit**	**Test Standard**
Burnin behav. at thickness h	**HB / ***	class	IEC 60695-11-10
Thickness tested	**3.0 / ***	mm	-
YellowCard available	yes **/ ***	-	-
Burning behav. at thickness h	**HB / ***	class	IEC 60695-11-10

Thickness tested	**0.8 / ***	mm	-
Yellow Card available	yes / *	-	-
Burning behav. at 1.5 mm nom. thickn.	**HB / ***	class	IEC 60695-11-10
Thickness tested	**1.5 / ***	mm	-
Yellow Card available	yes / *	-	-
Thickness tested	**0.4 / ***	mm	-
Oxygen index	**24 / ***	%	ISO 4589-1/-2
Limiting Oxygen Index	**24**	%	ASTM D 2863

Rheological properties	dry / cond	Unit	Test Standard
Melt volume-flow rate, MVR	**3.4 / ***	cm^3/10min	ISO 1133
Temperature	**230 / ***	°C	-
Load	**2.16 / ***	kg	-
Temperature	**230**	°C	-
Load	**2.16**	kg	-
Molding shrinkage, parallel	**0.7 / ***	%	ISO 294-4, 2577
Molding shrinkage, normal	**1.3 / ***	%	ISO 294-4, 2577
Mold temperature	**60 / ***	°C	-
Melt temperature	**240 / ***	°C	-

Characteristics

Key Feature, Industrial Sector
Automotive, Electrical and Electronical

Key Feature, Processing
Injection Molding, Extrusion

Key Feature, Resistance to
Heat (Thermal Stability), U.V. / Light / Weathering

Key Feature, Electrical
Isolating

Processing
Profile Extrusion

Special Characteristics
Semi-crystalline, Light-stabilized, Heat-stabilized, High viscosity

Features
General Chemical Resistance, Low Coefficient of Friction, Termite & rodent resistance

Key Feature, Additives
Unfilled

Applications
IT and Telecommunication, Tube and hose, Cable sheathing

Color
Orange

Additives
Light stabilizer, Heat stabilizer, Processing aids

Delivery form
Pellets, Granules

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