

Product Texts

Medium-viscosity PA612 resin

VESTAMID® D16 is a medium-viscosity Polyamide 612 compound for extrusion and injection moulding of e.g. monofilaments (toothbrush bristles).

The material based on PA612 absorbs only small amounts of water. Components made of this material therefore show excellent dimensional stability under changing ambient humidity.

VESTAMID® D16 is supplied as cylindrical granules in moisture-proof polyethylene containers ready for processing.

Pigmentation may affect values.

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	75 / *	cm ³ /10min	ISO 1133
Temperature	240 / *	°C	-
Load	5 / *	kg	-
^[C] Molding shrinkage, parallel	1.3 / *	%	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	2200 / 1700	MPa	ISO 527
^[C] Yield stress	58 / 53	MPa	ISO 527
^[C] Yield strain	4 / 16	%	ISO 527
^[C] Nominal strain at break	>50 / >50	%	ISO 527
^[C] Charpy impact strength, +23°C	N / N	kJ/m ²	ISO 179/1eU
^[C] Charpy impact strength, -30°C	N / N	kJ/m ²	ISO 179/1eU
^[C] Charpy notched impact strength, +23°C	5 / 6	kJ/m ²	ISO 179/1eA
^[C] Type of failure	C / C	-	-
^[C] Charpy notched impact strength, -30°C	6 / 6	kJ/m ²	ISO 179/1eA
^[C] Type of failure	C / C	-	-
^[C] Puncture - maximum force, +23°C	4380 / -	N	ISO 6603-2
^[C] Puncture - maximum force, -30°C	5690 / -	N	ISO 6603-2
^[C] Puncture energy, +23°C	53 / -	J	ISO 6603-2
^[C] Puncture energy, -30°C	60 / -	J	ISO 6603-2

[C]: CAMPUS

Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Melting temperature, 10°C/min	215 / *	°C	ISO 11357-1/-3
^[C] Glass transition temperature, 10°C/min	45 / *	°C	ISO 11357-1/-2
^[C] Temp. of deflection under load, 1.80 MPa	65 / *	°C	ISO 75-1/-2
^[C] Temp. of deflection under load, 0.45 MPa	150 / *	°C	ISO 75-1/-2
^[C] Vicat softening temperature, B	180 / *	°C	ISO 306
^[C] Coeff. of linear therm. expansion, parallel	130 / *	E-6/K	ISO 11359-1/-2
^[C] Coeff. of linear therm. expansion, normal	120 / *	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	3.8 / 4.5	-	IEC 62631-2-1
^[C] Relative permittivity, 1MHz	3.2 / 4.1	-	IEC 62631-2-1
^[C] Dissipation factor, 100Hz	240 / 590	E-4	IEC 62631-2-1
^[C] Dissipation factor, 1MHz	290 / 510	E-4	IEC 62631-2-1
^[C] Volume resistivity	>1E13 / 1E12	Ohm*m	IEC 62631-3-1
^[C] Electric strength	28 / 27	kV/mm	IEC 60243-1

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
^[C] Water absorption	2.7 / *	%	Sim. to ISO 62
^[C] Humidity absorption	1 / *	%	Sim. to ISO 62
^[C] Density	1060 / -	kg/m ³	ISO 1183

[C]: CAMPUS

Test specimen production	Value	Unit	Test Standard
ISO Data			
^[C] Injection Molding, melt temperature	250	°C	ISO 294
Injection Molding, mold temperature	80	°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, Profile Extrusion, Other Extrusion

Applications

Monofilament

Delivery form

Pellets

Regional Availability

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