

Product Texts

Polyamide 12 elastomer molding compounds

VESTAMID® Care ME55 is free of plasticizers and heat and light stabilized. VESTAMID® Care ME55 is resistant to body fluids and toxicologically safe.

VESTAMID® Care ME grades are flexible polyether block amides (PEBA) resins.

The advantages at a glance:

- High flexibility & elasticity
- Good rebound properties
- High impact resistance
- Excellent dimensional stability
- High chemical resistance
- Easy processability & colorability
- Plasticizer-free
- Gamma and EtO sterilization resistant
- Tough and resilient

Biocompatibility of VESTAMID® Care ME

Biocompatibility was tested following ISO10993-1 recommendations for a surface medical device with up to 30 days body contact.

The material fulfills the requirements of USP<88> class VI.

Tests were performed by independent, certified laboratories.

Biocompatibility tests for VESTAMID® Care:

Standard	Description
ASTM F756-08	Hemocompatibility
ISO 10993-5	Cytotoxicity
ISO 10993-10	Sensitization: Maximization test according to Magnusson and Kligman
ISO 10993-10	Irritation: Intracutaneous Reactivity
ISO 10993-11	Acute Systemic Toxicity
USP Class VI	Acute Systemic Toxicity Intracutaneous Reactivity Muscle Implantation

Processing of VESTAMID® Care

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.EVONIK.COM/MEDICAL-TECHNOLOGY

Processing/Physical Characteristics	dry / cond	Unit	Test Standard
ISO Data			
^[C] Melt volume-flow rate, MVR	24 / *	cm ³ /10min	ISO 1133
Temperature	240 / *	°C	-
Load	2.16 / *	kg	-
^[C] Molding shrinkage, parallel	0.8 / *	%	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	230 / -	MPa	ISO 527

^[C] Yield stress	17 / -	MPa	ISO 527
^[C] Yield strain	44 / -	%	ISO 527
^[C] Nominal strain at break	>50 / -	%	ISO 527
^[C] Tensile creep modulus, 1000h	* / 100	MPa	ISO 899-1
^[C] Charpy impact strength, +23°C	N / -	kJ/m ²	ISO 179/1eU
^[C] Charpy impact strength, -30°C	N / -	kJ/m ²	ISO 179/1eU
^[C] Charpy notched impact strength, +23°C	94 / -	kJ/m ²	ISO 179/1eA
^[C] Charpy notched impact strength, -30°C	22 / -	kJ/m ²	ISO 179/1eA
^[C] Type of failure	C / -	-	-
^[C] Shore D hardness	55 / *	-	ISO 7619-1

[C]: CAMPUS

Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Melting temperature, 10°C/min	166 / *	°C	ISO 11357-1/-3
^[C] Glass transition temperature, 10°C/min	-20 / *	°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	90 / *	°C	ISO 75-1/-2
^[C] Vicat softening temperature, B	100 / *	°C	ISO 306
^[C] Coeff. of linear therm. expansion, parallel	200 / *	E-6/K	ISO 11359-1/-2
^[C] Coeff. of linear therm. expansion, normal	200 / *	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	9.5 / -	-	IEC 62631-2-1
^[C] Relative permittivity, 1MHz	4.3 / -	-	IEC 62631-2-1
^[C] Dissipation factor, 100Hz	950 / -	E-4	IEC 62631-2-1
^[C] Dissipation factor, 1MHz	1100 / -	E-4	IEC 62631-2-1
^[C] Volume resistivity	3E9 / -	Ohm*m	IEC 62631-3-1

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
^[C] Water absorption	1.1 / *	%	Sim. to ISO 62
^[C] Humidity absorption	0.5 / *	%	Sim. to ISO 62
^[C] Density	1030 / -	kg/m ³	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	35	°C	ISO 294
Injection Molding, injection velocity	200	mm/s	ISO 294

[C]: CAMPUS

Characteristics

Processing

Injection Molding

Delivery form

Pellets

Certifications

Medical Grade, Biocompatibility ISO 10993, US Pharmacopeia Class VI Approved

Applications

Medical

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, Sterilizable, Ethylene Oxide (EtO) Sterilization, Gamma irradiation sterilization

Chemical Resistance

General Chemical Resistance

Regional Availability

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