CAMPUS® Datasheet

VESTAMID® Care ML18 - PA12
Evonik Operations GmbH

Product Text

Medium viscosity polyamide 12 for medical application
VESTAMID® Care ML18 is resistant to body fluids and toxicologically safe.
Typical application areas for filled VESTAMID Care ML grades include catheters, housing parts, monitoring and imaging devices and durable medical equipment.
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 ML
Biocompatiblity 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”.

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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

Rheological properties	dry/cond	Unit	Test Standard
Melt volume-flow rate, MVR	11 / -	cm³/10min	ISO 1133
Temperature	210 / -	°C	
Load	2.16 / -	kg	
Molding shrinkage, parallel	0.85 / -	%	ISO 294-4, 2577
Molding shrinkage, normal	1.03 / -	%	ISO 294-4, 2577

Mechanical properties	dry/cond	Unit	Test Standard
Tensile modulus	1400 / -	MPa	ISO 527
Yield stress	43 / -	MPa	ISO 527
Yield strain	5 / -	%	ISO 527
Nominal strain at break	>50 / -	%	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	5 / - C / -	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	6 / - C / -	kJ/m²	ISO 179/1eA

Thermal properties	dry/cond	Unit	Test Standard
Melting temperature, 10°C/min	178 / -	°C	ISO 11357-1/-3
Glass transition temperature, 10°C/min	45 / -	°C	ISO 11357-1/-2
Temperature of deflection under load, 1.80 MPa	50 / -	°C	ISO 75-1/-2
Temperature of deflection under load, 0.45 MPa	110 / -	°C	ISO 75-1/-2
Vicat softening temperature, 50°C/h 50N	140 / -	°C	ISO 306
Coefficient of linear thermal expansion, parallel	150 / -	E-6/K	ISO 11359-1/-2
Burning behavior at 1.5 mm nominal thickness	HB / -	class	IEC 60695-11-10
Thickness tested	1.6 / -	mm	

Other properties	dry/cond	Unit	Test Standard
Water absorption	1.5 / -	%	Sim. to ISO 62
Humidity absorption	0.7 / -	%	Sim. to ISO 62
Density	1020 / -	kg/m³	ISO 1183

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Test specimen production	Value	Unit	Test Standard
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

Characteristics

Processing

Injection molding

Delivery Form

Pellets

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