

Novodur® HD-15
ABS

INEOS Styrolution

Novodur® HD 15 acrylonitrile butadiene styrene (ABS) polymer features high surface quality and good impact strength. Novodur® HD 15 is an easily processable ABS grade with well-balanced mechanical properties and an excellent chemical and stress cracking resistance. Medical and food contact statements are available upon request.

Rheological properties	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	15	cm ³ /10min	ISO 1133
Temperature	220	°C	-
Load	10	kg	-

Mechanical Properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	2300	MPa	ISO 527
Yield stress	48	MPa	ISO 527
Yield strain	2.5	%	ISO 527
Nominal strain at break	10	%	ISO 527
Impact Strength (Charpy), +23°C	170	kJ/m ²	ISO 179/1eU
Impact Strength (Charpy), -30°C	90	kJ/m ²	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	14	kJ/m ²	ISO 179/1eA
Notched Impact Strength (Charpy), -30°C	6	kJ/m ²	ISO 179/1eA

Thermal Properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load (1.80 MPa)	93	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	99	°C	ISO 75-1/-2
Vicat softening temperature, 50°C/h 50N	100	°C	ISO 306
Coeff. of Linear Therm. Expansion, parallel	90	E-6/K	ISO 11359-1/-2

Electrical Properties	Value	Unit	Test Standard
ISO Data			
Electric Strength	37	kV/mm	IEC 60243-1
Comparative tracking index	600	-	IEC 60112

Other Properties	Value	Unit	Test Standard
ISO Data			
Water Absorption	1	%	Sim. to ISO 62
Humidity absorption	0.22	%	Sim. to ISO 62
Density	1050	kg/m ³	ISO 1183

Rheological calculation properties	Value	Unit	Test Standard
ISO Data			
Density of melt	940	kg/m ³	-
Thermal Conductivity of Melt	0.241	W/(m K)	-
Spec. heat capacity of melt	2230	J/(kg K)	-
Ejection temperature	90	°C	-

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	80	°C	-
Pre-drying - Time	2 - 4	h	-
Melt temperature	220 - 260	°C	-
Mold temperature	30 - 60	°C	-

Characteristics

Processing

Injection Molding

Delivery form

Pellets

Chemical Resistance

Radiation Resistance

Certifications

Medical, Biocompatibility ISO 10993, US Pharmacopeia Class VI Approved, Drug Master File, Long term supply assurance, Food

Special Characteristics

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

approval, Food approval 10/2011, Food Contact (FDA)

Applications

Medical

Injection Molding

PREPROCESSING

Pre-drying, Temperature: 80 °C

Pre-drying, Time: 2 - 4h

PROCESSING

Melt temperature, range: 230 - 260 °C

Mold temperature, range: 60 - 80 °C

Disclaimer

Liability Exclusion

These guide values are measured and provided by the product manufacturer and have been determined on standardised test specimens and can be affected by pigmentation, mould design and processing conditions. M-Base has taken the guide values from the producer's original Technical Data Sheet. **ALBIS AND M-BASE ARE THEREFORE NOT RESPONSIBLE FOR THE ACCURACY OF THE GUIDE VALUES AND CANNOT GIVE ANY WARRANTY WITH REGARD TO THEIR CORRECTNESS.**

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