INEOS STYROLUTION

K-Resin® KR99HG

SB — INEOS Styrolution Europe GmbH

Rheological properties	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	8	cm³/10min	ISO 1133
Temperature	200	°C	-
Load	5	kg	-
Molding shrinkage, parallel	0.7	%	ISO 294-4, 2577

Mechanical Properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	1500	MPa	ISO 527-1/-2
Yield stress	26	MPa	ISO 527-1/-2
Yield strain	2.2	%	ISO 527-1/-2
Strain at break	>50	%	ISO 527-1/-2
Charpy impact strength (+23°C)	no break	kJ/m²	ISO 179/1eU
Charpy notched impact strength (+23°C)	2	kJ/m²	ISO 179/1eA
Flexural modulus (23°C)	1400	MPa	ISO 178
Shore D hardness, 15s	65	-	ISO 868

Thermal Properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load (1.80 MPa)	61	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	76	°C	ISO 75-1/-2
Vicat softening temperature, 50°C/h 50N	53	°C	ISO 306
Coeff. of linear therm. expansion, parallel	75	E-6/K	ISO 11359-1/-2

Other Properties	Value	Unit	Test Standard
ISO Data			
Water absorption	0.07	%	Sim. to ISO 62
Density	1020	kg/m³	ISO 1183
Bulk density	600	kg/m³	-

Optical Properties	Value	Unit	Test Standard
ASTM Data			
Haze	1	%	ASTM D 1003
Light Transmittance	90	%	ASTM D 1003

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Melt temperature	180 - 250	°C	-
Mold temperature	30 - 50	°C	-

Characteristics

Processing
Injection Molding

Special Characteristics
Transparent

Delivery form
Pellets

Features
Blending Resin, Copolymer

Disclaimer

- risk class III applications according to EU directive 93/42/EEC
- any bodily implant application for greater than 30 days
- any critical component in any medical device that supports or sustains human life.

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