+135-3858-6433 (GuangDong)
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INEOS Styrolution

ALBIS

K-Resin® KR01

SB

INEOS Styrolution

K-Resin® KR01 processes very well in injection molding, providing good cycle times and design flexibility. Applications range from containers and packaging to medical applications, toys, displays, overcaps and hangers.

Rheological properties	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	8	cm³/10min	ISO 1133
Temperature	200	°C	-
Load	5	kg	-
Melt Flow Index, MFI	8	g/10min	ISO 1133
MFI temperature	200	°C	-
MFI load	5	kg	-

Mechanical Properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	1500	MPa	ISO 527
Yield stress	33	MPa	ISO 527
Yield strain	2.8	%	ISO 527
Impact Strength (Charpy), +23°C	30	kJ/m²	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	1.5	kJ/m²	ISO 179/1eA
Flexural Modulus (23°C)	1800	MPa	ISO 178

Thermal Properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load (1.80 MPa)	65	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	78	°C	ISO 75-1/-2
Vicat softening temperature, 50°C/h 50N	65	°C	ISO 306
ASTM Data			
Vicat Temperature	90	°C	ASTM D 1525

Other Properties	Value	Unit	Test Standard
ISO Data			
Humidity absorption	0.07	%	Sim. to ISO 62
Density	1010	kg/m³	ISO 1183

Rheological calculation properties	Value	Unit	Test Standard
ISO Data			
Density of melt	905	kg/m³	-
Thermal Conductivity of Melt	0.184	W/(m K)	-
Spec. heat capacity of melt	2320	J/(kg K)	-
Ejection temperature	60	°C	-

Optical Properties	Value	Unit	Test Standard
ASTM Data			
Gloss	164	-	ASTM D 2457
Light Transmittance	93	%	ASTM D 1003

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	50	°C	-
Pre-drying - Time	3 - 4	h	-
Melt temperature	180 - 240	°C	-
Mold temperature	30 - 50	°C	-

Characteristics

Processing
Injection Molding

Features
High Gloss, Low Warpage, Copolymer

Delivery form
Pellets

Certifications
Medical, Device Master File

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Special Characteristics

Transparent

Applications

Medical, Packaging

Injection Molding

As a rule, the K-Resin® granules do not have to be pre-dried. However, in the event of unfavorable storage or transportation conditions involving severe temperature fluctuations, moisture can condense on the surface of the granules and this then has to be removed in a pre-drying step. The granules should be pre-dried in a dry-air dryer for 3 to 4 hours at a temperature of about 50°C.

PROCESSING

Melt temperature, range: 180 - 240°C

Mold temperature, range: 30 - 50°C