INEOS STYROLUTION

K-RESIN® PRODUCT GUIDE

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ENTEC

Driving Success. Together.

As a premier clear resin, K-Resin® Styrenic Block Copolymer (SBC) is known for its unique blend of sparkling clarity, impact, toughness, stiffness and exceptional gloss. K-Resin® SBC has been used for over 40 years in a variety of applications ranging from packaging and toys to medical components and displays.

K-Resin® SBS Markets Includes:


Appliances


Office Products


Custom Compounds


Medical Devices


Consumer Goods


Flexible Packaging


Displays


Single Service Items


Rigid Packaging


Garment Hangers


Toys

		K-RESIN® KR01	K-RESIN® KR03	K-RESIN® KR03E	K-RESIN® KR05
Density (g/cm3)	ASTM D792	1.01	1.01	1.01	1.01
Melt Flow Rate at 200°C/5kg (g/10 min.)	ASTM D1238	8	7.5	7.5	7.5
Water Absorption (Equilibrium)	ASTM D570	---	<0.090	0.090	0.090
Tensile Modulus (psi)	ASTM D638	260,000	240,000	240,000	240,000
Tensile Strength at Yield (psi)	ASTM D638	4,900	3,800	3,800	3,800
Tensile Strain at Break (%)	ASTM D638	30	230	230	230
Flexural Modulus (psi)	ASTM D790	261,000	260,000	260,000	260,000
Flexural Strength (psi)	ASTM D790	7,800	5,400	5,400	5,400
Charpy Notched Impact (kJ/m2)	ISO 179/1eA	2	2	---	---
Instrumented Dart Impact (in-lb)	ASTM D3763	19	354	354	354
Shore Hardness (D)	ASTM D2240	69	63	63	63
HDT at 264 psi Annealed, (°F)	ASTM D648	148	144	144	144
Vicat Softening Temp 120°C/Hour 10 N (°F)	ASTM D1525	194	185	185	185
Gloss	ASTM D2457	164	162	162	162
Refractive Index	ISO 489	1.570	1.570	---	---
Light Transmission at 550 mn (%)	ASTM D1003	92	92	92	92
Haze (%)	ASTM D1003	<0.900	<0.900	<0.900	---

INJECTION MOLDING SETTINGS FOR K-RESIN®	
Drying Temperature / Time	Not Required
Feed Zone Temperature Range, °F	350 - 380
Middle Zone Temperature Range, °F	360 - 400
Front Zone Temperature Range, °F	400 - 425
Melt Temperature Range, °F	400 - 450
Mold Temperature Range, °F	60 - 130
Injection Pressure Range, psi	7,000 - 20,000
Injection Speed	Slow to Fast
Mold Shrinkage range, in/in	0.002 - 0.010

SHEET EXTRUSION STARTING SETTINGS FOR K-RESIN®	
Drying Temperature / Time	Not Required
Feed Zone Temperature, °F	350
Middle Zone Temperature, °F	380
Front Zone Temperature, °F	390
Die Temperature, °F	400
Melt Temperature Range, °F	390 - 425
Roll Temperature, °F	160
Blow Pressure Range, psi	40 - 100

BLOW MOLDING SETTINGS FOR K-RESIN®	
Drying Temperature / Time	Not required
Feed Zone Temperature Range, °F	290 - 320
Middle Zone Temperature Range, °F	330 - 350
Front Zone Temperature Range, °F	330 - 360
Head Temperature Range, °F	340 - 370
Melt Temperature Range, °F	360 - 390
Mold Temperature Range, °F	40 - 80
Blow Pressure Range, psi	40 - 100
Mold Shrinkage range, in/in	0.002 - 0.010