



Clearblend® 145

INEOS Styrolution - Methyl Methacrylate Butadiene Styrene

Monday, November 4, 2019

General Information

Product Description

Clearblend® 145 is an impact modified styrene acrylic copolymer blend with excellent clarity.

FEATURES

- Excellent clarity
- Low density
- Ease of processing
- Low moisture absorption

APPLICATIONS

- Appliances and consumer goods
- Toys
- Office accessories
- Industrial housings and covers
- Point of purchase displays

General

Material Status	• Commercial: Active		
Availability	• Asia Pacific	• Latin America	• North America
Additive	• Impact Modifier		
Features	• Copolymer • Good Processability	• High Clarity • Impact Modified	• Low Density • Low Moisture Absorption
Uses	• Appliances • Consumer Applications	• Displays • Housings	• Industrial Applications • Toys
Processing Method	• Injection Molding		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.04		ASTM D792
Density	1.04	g/cm ³	ISO 1183
Melt Mass-Flow Rate (200°C/5.0 kg)	3.5	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (200°C/5.0 kg)	3.50	cm ³ /10min	ISO 1133
Molding Shrinkage - Flow	2.0E-3 to 6.0E-3	in/in	ASTM D955
Molding Shrinkage	0.20 to 0.60	%	ISO 294-4
Water Absorption (Saturation, 73°F)	0.10	%	ASTM D570
Water Absorption (Saturation, 73°F)	0.10	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	325000	psi	ASTM D638
Tensile Modulus	325000	psi	ISO 527-2
Tensile Strength (Yield, 73°F)	4000	psi	ASTM D638
Tensile Stress (Yield, 73°F)	4060	psi	ISO 527-2
Tensile Elongation (Break)	40	%	ASTM D638
Flexural Modulus (73°F)	330000	psi	ASTM D790
Flexural Modulus (73°F)	331000	psi	ISO 178
Flexural Strength (73°F)	8000	psi	ASTM D790

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Mechanical	Nominal Value	Unit	Test Method
Flexural Stress (73°F)	7980	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (73°F)	1.0	ft-lb/in	ASTM D256
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	80		ASTM D785
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load ² (264 psi, Annealed)	198	°F	
Vicat Softening Temperature	208	°F	ASTM D1525 ³
Maximum Service Temperature	482	°F	
Optical	Nominal Value	Unit	Test Method
Refractive Index ⁴	1.570		ASTM D542
Refractive Index	1.570		ISO 489
Transmittance (550 nm)	90.0	%	ASTM D1003
Haze	2.00	%	ASTM D1003

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	149	°F
Drying Time	2.0	hr
Rear Temperature	355 to 415	°F
Middle Temperature	365 to 425	°F
Front Temperature	375 to 435	°F
Processing (Melt) Temp	400 to 460	°F
Mold Temperature	81 to 129	°F

Notes

¹ Typical properties: these are not to be construed as specifications.

² 4h/80°C

³ Rate B (120°C/h), Loading 1 (10 N)

⁴ Sodium D line