

Overview of materials for Ionomer, Molded

Category : Polymer , Thermoplastic , Ionomer , Ionomer, Molded

Material Notes:

This property data is a summary of similar materials in the MatWeb database for the category "Ionomer, Molded". Each property range of values reported is minimum and maximum values of appropriate MatWeb entries. The comments report the average value, and number of data points used to calculate the average. The values are not necessarily typical of any specific grade, especially less common values and those that can be most affected by additives or processing methods.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Overview-of-materials-for-Ionomer-Molded.php

Physical Properties	Metric	English	Comments
Density	0.940 - 0.970 g/cc	0.0340 - 0.0350 lb/in ³	Average value: 0.957 g/cc Grade Count:48
Linear Mold Shrinkage	0.00600 - 0.0180 cm/cm	0.00600 - 0.0180 in/in	Average value: 0.0100 cm/cm Grade Count:9
Melt Flow	0.700 - 20.0 g/10 min	0.700 - 20.0 g/10 min	Average value: 2.83 g/10 min Grade Count:46

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	30.0 - 68.0	30.0 - 68.0	Average value: 58.5 Grade Count:41
Tensile Strength, Ultimate	12.0 - 37.2 MPa	1740 - 5400 psi	Average value: 25.7 MPa Grade Count:47
Tensile Strength, Yield	3.10 - 21.0 MPa	450 - 3050 psi	Average value: 14.0 MPa Grade Count:25
Elongation at Break	225 - 680 %	225 - 680 %	Average value: 414 % Grade Count:48
Flexural Modulus	0.0296 - 0.758 GPa	4.29 - 110 ksi	Average value: 0.308 GPa Grade Count:48
Izod Impact, Notched	3.65 J/cm - NB	6.84 ft-lb/in - NB	Average value: 6.58 J/cm Grade Count:20
	8.5424 - 8.5424 J/cm @Temperature -30.0 - - 30.0 °C	16.003 - 16.003 ft-lb/in @Temperature -22.0 - - 22.0 °F	Average value: 8.54 J/cm Grade Count:5
Izod Impact, Notched (ISO)	NB	NB	Grade Count:4
Gardner Impact	36.1552 - 36.1552 J @Temperature -30.0 - - 30.0 °C	26.6667 - 26.6667 ft-lb @Temperature -22.0 - - 22.0 °F	Average value: 36.2 J Grade Count:5
Tensile Impact Strength	340 - 1320 kJ/m ²	162 - 628 ft-lb/in ²	Average value: 837 kJ/m ² Grade Count:27

Tear Strength Mechanical Properties	102 - 164 kN/m Metric	582 - 935 pli English	Average value: 136 kN/m Grade Count:10
--	--------------------------	--------------------------	---

Thermal Properties	Metric	English	Comments
CTE, linear	76.0 - 170 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$	42.2 - 94.4 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$	Average value: 130 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$ Grade Count:20
Thermal Conductivity	0.230 - 0.250 W/m-K	1.60 - 1.74 BTU-in/hr- ft ² -°F	Average value: 0.244 W/m-K Grade Count:15
Melting Point	47.0 - 105 °C	117 - 221 °F	Average value: 84.7 °C Grade Count:40
Deflection Temperature at 0.46 MPa (66 psi)	34.0 - 80.0 °C	93.2 - 176 °F	Average value: 45.3 °C Grade Count:24
Vicat Softening Point	40.0 - 74.0 °C	104 - 165 °F	Average value: 60.4 °C Grade Count:39
Brittleness Temperature	-112 - -71.0 °C	-170 - -95.8 °F	Average value: -98.0 °C Grade Count:12
Flame Spread	17.8 - 27.9 mm/min	0.701 - 1.10 in/min	Average value: 23.4 mm/min Grade Count:15

Optical Properties	Metric	English	Comments
Haze	4.00 - 27.0 %	4.00 - 27.0 %	Average value: 10.9 % Grade Count:18
Gloss	25.0 - 143 %	25.0 - 143 %	Average value: 60.3 % Grade Count:12
Transmission, Visible	90.0 %	90.0 %	Average value: 90.0 % Grade Count:6

Processing Properties	Metric	English	Comments
Nozzle Temperature	238 - 271 °C	460 - 520 °F	Average value: 254 °C Grade Count:5
Melt Temperature	238 - 288 °C	460 - 550 °F	Average value: 263 °C Grade Count:5
Mold Temperature	15.6 - 60.0 °C	60.0 - 140 °F	Average value: 37.8 °C Grade Count:5
Drying Temperature	60.0 - 79.4 °C	140 - 175 °F	Average value: 69.7 °C Grade Count:5
Moisture Content	0.0800 %	0.0800 %	Average value: 0.0800 % Grade Count:5

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215, Fengxian District, Shanghai City, China