

Overview of materials for Acetal Copolymer, Mineral Filled

Category : Polymer , Thermoplastic , Acetal (POM) , Acetal Copolymer, Mineral Filled

Material Notes:

This property data is a summary of similar materials in the MatWeb database for the category "Acetal Copolymer, Mineral Filled". 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-Acetal-Copolymer-Mineral-Filled.php

Physical Properties	Metric	English	Comments
Density	1.20 - 1.73 g/cc	0.0434 - 0.0625 lb/in ³	Average value: 1.51 g/cc Grade Count:35
Filler Content	10.0 - 30.0 %	10.0 - 30.0 %	Average value: 20.0 % Grade Count:4
Water Absorption	0.100 - 0.900 %	0.100 - 0.900 %	Average value: 0.403 % Grade Count:6
Moisture Absorption at Equilibrium	0.150 - 0.210 %	0.150 - 0.210 %	Average value: 0.196 % Grade Count:9
Water Absorption at Saturation	0.650 - 0.750 %	0.650 - 0.750 %	Average value: 0.730 % Grade Count:5
Linear Mold Shrinkage	0.00500 - 0.0300 cm/cm	0.00500 - 0.0300 in/in	Average value: 0.0160 cm/cm Grade Count:29
Linear Mold Shrinkage, Transverse	0.0120 - 0.0215 cm/cm	0.0120 - 0.0215 in/in	Average value: 0.0150 cm/cm Grade Count:7
Melt Flow	6.27 - 25.0 g/10 min	6.27 - 25.0 g/10 min	Average value: 17.8 g/10 min Grade Count:13

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	80.0 - 85.0	80.0 - 85.0	Average value: 82.3 Grade Count:12
Tensile Strength, Ultimate	34.5 - 91.0 MPa	5000 - 13200 psi	Average value: 58.1 MPa Grade Count:23
Tensile Strength, Yield	44.1 - 75.0 MPa	6400 - 10900 psi	Average value: 55.0 MPa Grade Count:12
Elongation at Break	2.50 - 25.0 %	2.50 - 25.0 %	Average value: 8.85 % Grade Count:24
Elongation at Yield	3.00 - 8.00 %	3.00 - 8.00 %	Average value: 5.65 % Grade Count:8
Modulus of Elasticity	2.90 - 7.00 GPa	420 - 1020 ksi	Average value: 4.13 GPa Grade Count:21
Flexural Yield Strength	68.9 - 181 MPa	10000 - 26300 psi	Average value: 104 MPa Grade Count:28
	2.55 - 7.35 GPa	370 - 1070 ksi	Average value: 3.94 GPa Grade

Flexural Modulus Mechanical Properties	Metric	English	Count:23 Comments
Izod Impact, Notched	0.200 - 5.00 J/cm	0.375 - 9.37 ft-lb/in	Average value: 0.889 J/cm Grade Count:22
	0.32034 - 0.48051 J/cm @Temperature -40.0 - 82.2 °C	0.60013 - 0.90019 ft-lb/in @Temperature -40.0 - 180 °F	Average value: 0.400 J/cm Grade Count:2
Izod Impact, Unnotched	2.67 - 10.7 J/cm	5.00 - 20.0 ft-lb/in	Average value: 7.12 J/cm Grade Count:6
Izod Impact, Notched (ISO)	3.00 - 6.30 kJ/m ²	1.43 - 3.00 ft-lb/in ²	Average value: 4.95 kJ/m ² Grade Count:6
	3.50 - 3.50 kJ/m ² @Temperature -30.0 - - 30.0 °C	1.67 - 1.67 ft-lb/in ² @Temperature -22.0 - - 22.0 °F	Average value: 3.50 kJ/m ² Grade Count:1
Charpy Impact Unnotched	1.50 - 5.50 J/cm ²	7.14 - 26.2 ft-lb/in ²	Average value: 3.75 J/cm ² Grade Count:4
	5.50 - 5.50 J/cm ² @Temperature -30.0 - - 30.0 °C	26.2 - 26.2 ft-lb/in ² @Temperature -22.0 - - 22.0 °F	Average value: 5.50 J/cm ² Grade Count:1
Charpy Impact, Notched	0.200 - 0.680 J/cm ²	0.952 - 3.24 ft-lb/in ²	Average value: 0.424 J/cm ² Grade Count:15
	0.300 - 0.550 J/cm ² @Temperature -30.0 - - 30.0 °C	1.43 - 2.62 ft-lb/in ² @Temperature -22.0 - - 22.0 °F	Average value: 0.440 J/cm ² Grade Count:6
Taber Abrasion, mg/1000 Cycles	19.0 - 33.0	19.0 - 33.0	Average value: 27.3 Grade Count:3

Thermal Properties	Metric	English	Comments
CTE, linear	40.0 - 110 µm/m-°C	22.2 - 61.1 µin/in-°F	Average value: 80.3 µm/m-°C Grade Count:13
CTE, linear, Transverse to Flow	80.0 - 120 µm/m-°C	44.4 - 66.7 µin/in-°F	Average value: 98.8 µm/m-°C Grade Count:8
Melting Point	160 - 170 °C	320 - 338 °F	Average value: 166 °C Grade Count:13
Maximum Service Temperature, Air	100 - 120 °C	212 - 248 °F	Average value: 110 °C Grade Count:3
Deflection Temperature at 0.46 MPa (66 psi)	152 - 165 °C	306 - 329 °F	Average value: 161 °C Grade Count:16
Deflection Temperature at 1.8 MPa (264 psi)	93.3 - 160 °C	200 - 320 °F	Average value: 120 °C Grade Count:27
Vicat Softening Point	155 - 158 °C	311 - 316 °F	Average value: 156 °C Grade Count:3
Flammability, UL94	HB	HB	Grade Count:24

Electrical Properties	Metric	English	Comments
Electrical Resistivity	1.00e+12 - 3.00e+14 ohm-cm	1.00e+12 - 3.00e+14 ohm-cm	Average value: 1.27e+14 ohm-cm Grade Count:15
Surface Resistance	1.00e+12 - 2.00e+16 ohm	1.00e+12 - 2.00e+16 ohm	Average value: 5.79e+15 ohm Grade Count:13
Dielectric Constant	3.70 - 4.20	3.70 - 4.20	Average value: 4.00 Grade Count:5
Dielectric Strength	19.0 - 43.0 kV/mm	483 - 1090 kV/in	Average value: 25.5 kV/mm Grade Count:8
Dissipation Factor	0.00250 - 0.00800	0.00250 - 0.00800	Average value: 0.00564 Grade Count:5

Processing Properties	Metric	English	Comments
Processing Temperature	80.0 - 230 °C	176 - 446 °F	Average value: 171 °C Grade Count:11
Nozzle Temperature	175 - 220 °C	347 - 428 °F	Average value: 201 °C Grade Count:5
Die Temperature	190 - 200 °C	374 - 392 °F	Average value: 195 °C Grade Count:4
Melt Temperature	170 - 230 °C	338 - 446 °F	Average value: 194 °C Grade Count:13
Mold Temperature	60.0 - 120 °C	140 - 248 °F	Average value: 93.6 °C Grade Count:13
Drying Temperature	75.0 - 121 °C	167 - 250 °F	Average value: 101 °C Grade Count:13
Moisture Content	0.150 %	0.150 %	Average value: 0.150 % Grade Count:3
Dew Point	-31.7 °C	-25.0 °F	Average value: -31.7 °C Grade Count:3
Injection Pressure	39.2 - 120 MPa	5690 - 17400 psi	Average value: 83.8 MPa Grade Count:13

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