

Overview of materials for Ethylene Vinyl Acetate Copolymer (EVA), Adhesive/Sealant Grade

Category : Polymer , Thermoplastic , Ethylene Vinyl Acetate , Ethylene Vinyl Acetate Copolymer (EVA), Adhesive/Sealant Grade

Material Notes:

This property data is a summary of similar materials in the MatWeb database for the category "Ethylene Vinyl Acetate Copolymer (EVA), Adhesive/Sealant Grade". 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-Ethylene-Vinyl-Acetate-Copolymer-EVA-AdhesiveSealant-Grade.php

Physical Properties	Metric	English	Comments
Density	0.914 - 0.980 g/cc	0.0330 - 0.0354 lb/in ³	Average value: 0.945 g/cc Grade Count:71
Apparent Bulk Density	0.449 - 0.577 g/cc	0.0162 - 0.0208 lb/in ³	Average value: 0.534 g/cc Grade Count:9
Viscosity	140 - 40000 cP	140 - 40000 cP	Average value: 495000 cP Grade Count:42
	@Temperature 121 - 190 °C	@Temperature 250 - 374 °F	
	300000 - 1.90e+6 cP	300000 - 1.90e+6 cP	
	@Temperature 190 - 190 °C	@Temperature 374 - 374 °F	Average value: 495000 cP Grade Count:22
	300000 - 1.90e+6 cP	300000 - 1.90e+6 cP	Average value: 495000 cP Grade Count:22
	@Shear Rate 50.0 - 50.0 1/s	@Shear Rate 50.0 - 50.0 1/s	
Environmental Stress Crack Resistance	>= 300 hour	>= 300 hour	Average value: 300 hour Grade Count:3
	@Temperature 50.0 - 50.0 °C	@Temperature 122 - 122 °F	
	>= 300 hour	>= 300 hour	Average value: 300 hour Grade Count:3
	@Thickness 2.00 - 2.00 mm	@Thickness 0.0787 - 0.0787 in	
Vinyl Acetate Content	17.0 - 44.0 %	17.0 - 44.0 %	Average value: 27.6 % Grade Count:31
Melt Flow	0.800 - 900 g/10 min	0.800 - 900 g/10 min	Average value: 107 g/10 min Grade Count:68

Mechanical Properties	Metric	English	Comments
Hardness, Shore A	40.0 - 85.0	40.0 - 85.0	Average value: 69.8 Grade Count:34
Hardness, Shore D	15.0 - 31.0	15.0 - 31.0	Average value: 22.9 Grade Count:11

Mechanical Properties	Metric	English	Comments
Tensile Strength, Ultimate	1.50 - 27.0 MPa	215 - 3920 psi	Average value: 7.37 MPa Grade Count:36
Tensile Strength, Yield	2.70 - 6.50 MPa	392 - 943 psi	Average value: 4.82 MPa Grade Count:4
Elongation at Break	50.0 - 1300 %	50.0 - 1300 %	Average value: 668 % Grade Count:38
Modulus of Elasticity	0.00300 - 0.100 GPa	0.435 - 14.5 ksi	Average value: 0.0677 GPa Grade Count:3
Flexural Modulus	0.00440 - 0.0414 GPa	0.638 - 6.00 ksi	Average value: 0.0221 GPa Grade Count:12
Dart Drop, Total Energy	24.4048 - 24.4048 J @Temperature -40.0 - -40.0 °C	18.0000 - 18.0000 ft-lb @Temperature -40.0 - -40.0 °F	Average value: 24.4 J Grade Count:1
Seal Strength	1200 - 4500 g/25 mm	1200 - 4500 g/in	Average value: 2860 g/25 mm Grade Count:4

Thermal Properties	Metric	English	Comments
Melting Point	48.0 - 112 °C	118 - 234 °F	Average value: 75.6 °C Grade Count:70
Maximum Service Temperature, Air	51.7 - 78.9 °C	125 - 174 °F	Average value: 68.2 °C Grade Count:29
Vicat Softening Point	40.0 - 181 °C	104 - 358 °F	Average value: 63.9 °C Grade Count:62
Minimum Service Temperature, Air	-45.6 - -17.8 °C	-50.0 - 0.000 °F	Average value: -28.9 °C Grade Count:29
Ring & Ball Softening Point	76.0 - 183 °C	169 - 361 °F	Average value: 111 °C Grade Count:17

Optical Properties	Metric	English	Comments
Refractive Index	1.31 - 1.49	1.31 - 1.49	Average value: 1.43 Grade Count:3
Transmission, Visible	80.0 - 90.0 %	80.0 - 90.0 %	Average value: 83.3 % Grade Count:3

Processing Properties	Metric	English	Comments
Processing Temperature	200 - 315 °C	392 - 599 °F	Average value: 235 °C Grade Count:42
Nozzle Temperature	185 - 275 °C	365 - 527 °F	Average value: 234 °C Grade Count:22
Adapter Temperature	185 - 285 °C	365 - 545 °F	Average value: 224 °C Grade Count:4
Die Temperature	185 - 285 °C	365 - 545 °F	Average value: 224 °C Grade Count:4
Melt Temperature	150 - 305 °C	302 - 581 °F	Average value: 212 °C Grade Count:6
	0.0833 - 1.00 min	0.0833 - 1.00 min	Average value: 0.449 min Grade

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