

3M Scotch-Weld™ 2216 B/A Gray Epoxy Adhesive

Category : Polymer , Thermoset , Epoxy , Epoxy Adhesive

Material Notes:

3M™ Scotch-Weld™ Epoxy Adhesive 2216 B/A is a flexible, two-part, room temperature curing epoxy with high peel and shear strength. Scotch-Weld epoxy adhesive 2216 B/A is identical to 3M Scotch-Weld Epoxy Adhesive EC-2216 B/A in chemical composition. Scotch-Weld epoxy adhesive 2216 B/A may be used for aircraft and aerospace applications if proper Certificates of Test have been issued and material meets all aircraft manufacturer's specification requirements. Information provided by 3M

Order this product through the following link:

http://www.lookpolymers.com/polymer_3M-Scotch-Weld-2216-BA-Gray-Epoxy-Adhesive.php

Physical Properties	Metric	English	Comments
Brookfield Viscosity	40000 - 80000 cP	40000 - 80000 cP	Accelerator, RVF #7 spindle, 20 rpm
	75000 - 150000 cP	75000 - 150000 cP	Base, RVF #7 spindle, 20 rpm

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	50 - 65	50 - 65	
Shear Modulus	0.342 GPa	49.6 ksi	Torsion Pendulum Method
	@Temperature 24.0 °C	@Temperature 75.2 °F	
	1.509 GPa	218.8 ksi	Torsion Pendulum Method
	@Temperature 0.000 °C	@Temperature 32.0 °F	
	1.946 GPa	282.3 ksi	Torsion Pendulum Method
	@Temperature -40.0 °C	@Temperature -40.0 °F	
2.1984 GPa	318.85 ksi	Torsion Pendulum Method	
@Temperature -60.0 °C	@Temperature -76.0 °F		
2.74 GPa	398 ksi	Torsion Pendulum Method	
@Temperature -100 °C	@Temperature -148 °F		
Shear Strength	1.38 MPa	200 psi	Overlap, SBR/Steel; ASTM D1002
	1.52 MPa	220 psi	Overlap, Neoprene Rubber/Steel; ASTM D1002
	2.07 MPa	300 psi	Overlap, Etched Al, Salt Spray at RT for 90 days
	3.45 MPa	500 psi	Overlap, Etched Al, Salt Spray at RT for 30 days
	4.21 MPa	610 psi	Overlap, Polyphenylene Oxide/PPO; ASTM D1002

Mechanical Properties	5.95 MPa Metric	850 psi English	Overlap, Brass/Brass, ASTM D1002 Comments
	6.48 MPa	940 psi	Overlap, PVC/PVC, Rigid; ASTM D1002
	6.83 MPa	990 psi	Overlap, ABS/ABS Plastic; ASTM D1002
	7.24 MPa	1050 psi	Overlap, Copper/Copper; ASTM D1002
	7.58 MPa	1100 psi	Overlap, Acrylic/Acrylic; ASTM D1002
	8.07 MPa	1170 psi	Overlap, Polycarbonate/Polycarbonate; ASTM D1002
	8.89 MPa	1290 psi	Overlap, PC/ABS Alloy / PC/ABS Alloy; ASTM D1002
	10.38 MPa	1505 psi	Overlap, Etched Al, 100% RH at 49°C for 90 days
	11.4 MPa	1660 psi	Overlap, Fiber Reinforced Polyester/Reinforced Polyester; ASTM D1002
	11.7 MPa	1700 psi	Overlap, CRS/CRS; ASTM D1002
	12.4 MPa	1800 psi	Overlap, Galvanized Steel/Galvanized Steel; ASTM D1002
	12.8 MPa	1850 psi	Overlap, Al/Al; ASTM D1002
	13.1 MPa	1900 psi	Overlap, Stainless Steel/Stainless Steel; ASTM D1002
	13.69 MPa	1985 psi	Overlap, Etched Al, 100% RH at 49°C for 30 days
	14.31 MPa	2075 psi	Overlap, Etched Al, Tap water at RT for 90 days
	15.9 MPa	2300 psi	Overlap, Etched Al, Salt Spray at RT for 14 days
	17.2 MPa	2500 psi	Overlap, Etched Al, Hydraulic Oil at RT for 30 days
	17.2 MPa	2500 psi	Overlap, Etched Al, JP-4 for 30 days
	20.28 MPa	2942 psi	Overlap, Etched Al, Tap water at RT for 30 days
	20.3 MPa	2950 psi	Overlap, Etched Al, 100% RH at 49°C for 14 days
	21.5 MPa	3120 psi	Overlap, Etched Al, Tap water at RT for 14 days
	22.8 MPa	3300 psi	Overlap, Etched Al, Anti-icing Fluid at RT for 7 days

Mechanical Properties	Metric	English	Comments
	32.1 MPa	4650 psi	Overlap, Etched Al, Air at 71°C for 35 days
	34.0 MPa	4930 psi	Overlap, Etched Al, Air at 149°C for 40 days
	2.76 MPa @Temperature 82.0 °C	400 psi @Temperature 180 °F	Overlap, Etched Aluminum; ASTM D1002
	16.8 MPa @Temperature -253 °C	2440 psi @Temperature -423 °F	Overlap, Etched Aluminum; ASTM D1002
	18.9 MPa @Temperature -196 °C	2740 psi @Temperature -321 °F	Overlap, Etched Aluminum; ASTM D1002
	20.7 MPa @Temperature -73.0 °C	3000 psi @Temperature -99.4 °F	Overlap, Etched Aluminum; ASTM D1002
	20.7 MPa @Temperature -53.0 °C	3000 psi @Temperature -63.4 °F	Overlap, Etched Aluminum; ASTM D1002
	22.1 MPa @Temperature 24.0 °C	3200 psi @Temperature 75.2 °F	Overlap, Etched Aluminum; ASTM D1002
	2.90 MPa @Temperature 117 °C, Time 4.406e+6 sec	420 psi @Temperature 243 °F, Time 1224 hour	Overlap, Cured for 7 days at 24°C
	3.03 MPa @Temperature 117 °C, Time 4.406e+6 sec	440 psi @Temperature 243 °F, Time 1224 hour	Overlap, Cured for 7 days at 24°C
	3.45 MPa @Temperature 82.0 °C, Time 3.46e+6 sec	500 psi @Temperature 180 °F, Time 960 hour	Overlap, Cured for 7 days at 24°C
	3.86 MPa @Temperature 117 °C, Time 4.406e+6 sec	560 psi @Temperature 243 °F, Time 1224 hour	Overlap, Cured for 7 days at 24°C
	5.24 MPa @Temperature 82.0 °C, Time 3.46e+6 sec	760 psi @Temperature 180 °F, Time 960 hour	Overlap, Cured for 7 days at 24°C
	6.89 MPa @Temperature 82.0 °C, Time 3.46e+6 sec	1000 psi @Temperature 180 °F, Time 960 hour	Overlap, Cured for 7 days at 24°C

Mechanical Properties	7.72 MPa Metric	1120 psi English	Comments
	@Temperature 82.0 °C, Time 3.46e+6 sec	@Temperature 180 °F, Time 960 hour	Overlap, Cured for 7 days at 24 °C
	15.2 MPa @Temperature -53.0 °C, Time 0.000 sec	2200 psi @Temperature -63.4 °F, Time 0.000 hour	Overlap, Cured for 7 days at 24 °C
	19.7 MPa @Temperature -53.0 °C, Time 0.000 sec	2860 psi @Temperature -63.4 °F, Time 0.000 hour	Overlap, Cured for 7 days at 24 °C
	21.4 MPa @Temperature 24.0 °C, Time 1.04e+6 sec	3100 psi @Temperature 75.2 °F, Time 288 hour	Overlap, Cured for 7 days at 24 °C
	21.5 MPa @Temperature -53.0 °C, Time 0.000 sec	3120 psi @Temperature -63.4 °F, Time 0.000 hour	Overlap, Cured for 7 days at 24 °C
	22.8 MPa @Temperature -53.0 °C, Time 0.000 sec	3310 psi @Temperature -63.4 °F, Time 0.000 hour	Overlap, Cured for 7 days at 24 °C
	32.7 MPa @Temperature 24.0 °C, Time 1.04e+6 sec	4740 psi @Temperature 75.2 °F, Time 288 hour	Overlap, Cured for 7 days at 24 °C
	34.0 MPa @Temperature 24.0 °C, Time 1.04e+6 sec	4930 psi @Temperature 75.2 °F, Time 288 hour	Overlap, Cured for 7 days at 24 °C
	35.5 MPa @Temperature 24.0 °C, Time 1.04e+6 sec	5150 psi @Temperature 75.2 °F, Time 288 hour	Overlap, Cured for 7 days at 24 °C
Peel Strength	4.38 kN/m	25.0 pli	T-Peel

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.90e+12 ohm-cm	1.90e+12 ohm-cm	@ 500 volts DC
Surface Resistance	5.50e+16 ohm	5.50e+16 ohm	@ 500 volts DC
Dielectric Constant	6.3 @Temperature 60.0 °C	6.3 @Temperature 140 °F	

Electrical Properties	^{5.51} Metric	^{5.51} English	Comments
	@Frequency 1000 Hz, Temperature 23.0 °C	@Frequency 1000 Hz, Temperature 73.4 °F	
Dielectric Strength	16.1 kV/mm	408 kV/in	
Dissipation Factor	0.112	0.112	
	@Frequency 1000 Hz, Temperature 23.0 °C	@Frequency 1000 Hz, Temperature 73.4 °F	
	0.422	0.422	
	@Frequency 1000 Hz, Temperature 60.0 °C	@Frequency 1000 Hz, Temperature 140 °F	

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