

## 3M Scotch-Weld™ DP460 Off-White Epoxy Adhesive

Category : Polymer , Thermoset , Epoxy , Epoxy Adhesive

### Material Notes:

3M™ Scotch-Weld™ Epoxy Adhesive DP460 Off-White and DP460 NS are high performance, two-part epoxy adhesives offering outstanding shear and peel adhesion and very high levels of durability. Information provided by 3M

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_3M-Scotch-Weld-DP460-Off-White-Epoxy-Adhesive.php](http://www.lookpolymers.com/polymer_3M-Scotch-Weld-DP460-Off-White-Epoxy-Adhesive.php)

Physical Properties	Metric	English	Comments
Viscosity	8000 - 14000 cP	8000 - 14000 cP	Accelerator
	20000 - 50000 cP	20000 - 50000 cP	Base

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	75 - 80	75 - 80	
Shear Strength	0.689 MPa	100 psi	Overlap, Isopropyl Alcohol Wipe surface prep, Neoprene/Steel
	0.827 MPa	120 psi	Overlap, Isopropyl Alcohol/Abrade/Isopropyl Alcohol surface prep, Neoprene/Steel
	0.965 MPa	140 psi	Overlap, Isopropyl Alcohol/Abrade/Isopropyl Alcohol surface prep, SBR/Steel
	1.03 MPa	150 psi	Overlap, Isopropyl Alcohol Wipe surface prep, SBR/Steel
	1.52 MPa	220 psi	Overlap, Isopropyl Alcohol Wipe surface prep, Polyacrylic
	2.07 MPa	300 psi	Overlap, Isopropyl Alcohol Wipe surface prep, ABS
	2.28 MPa	330 psi	Overlap, Isopropyl Alcohol/Abrade/Isopropyl Alcohol surface prep, Polyacrylic
	2.41 MPa	350 psi	Overlap, Isopropyl Alcohol/Abrade/Isopropyl Alcohol surface prep, PVC
	2.76 MPa	400 psi	Overlap, Isopropyl Alcohol Wipe surface prep, Polycarbonate
	3.10 MPa	450 psi	Overlap, Isopropyl Alcohol Wipe surface prep, Polystyrene
3.28 MPa	475 psi	Overlap, Isopropyl Alcohol/Abrade/Isopropyl Alcohol surface prep, Polystyrene	

Mechanical Properties	3.45 MPa Metric	500 psi English	Overlap, Isopropyl Alcohol Wipe Abrade prep, PVC
	3.45 MPa	500 psi	Overlap, Isopropyl Alcohol/Abrade/Isopropyl Alcohol surface prep, Polycarbonate
	3.96 MPa	575 psi	Overlap, Isopropyl Alcohol/Abrade/Isopropyl Alcohol surface prep, ABS
	5.52 MPa	800 psi	Overlap, Isopropyl Alcohol Wipe surface prep, FRP
	6.89 MPa	1000 psi	Overlap, Isopropyl Alcohol/Abrade/Isopropyl Alcohol Wipe surface prep, FRP
	9.65 MPa	1400 psi	Overlap, Isopropyl Alcohol Wipe surface prep, Phenolic
	9.65 MPa	1400 psi	Overlap, Isopropyl Alcohol/Abrade/Isopropyl Alcohol surface prep, Phenolic
	13.8 MPa	2000 psi	Overlap, Galvanized Steel Okite degrease Hot dip
	14.5 MPa	2100 psi	Overlap, Galvanized Steel Okite degrease Electrodeposited
	19.3 MPa	2800 psi	Overlap, CRS MEK/abrade/MEK
	22.1 MPa	3200 psi	Overlap, Aluminum Oakite degrease
	24.1 MPa	3500 psi	Overlap, Aluminum MEK/abrade/MEK
	24.1 MPa	3500 psi	Overlap, CRS Oakite degrease
	27.6 MPa	4000 psi	Overlap, Copper MEK/abrade/MEK
	27.6 MPa	4000 psi	Overlap, Brass CDA 260
	27.6 MPa	4000 psi	Overlap, Stainless Steel MEK/abrade/MEK
	29.0 MPa	4200 psi	Overlap, Brass Cartridge
	31.0 MPa	4500 psi	Overlap, Aluminum Etched
	31.0 MPa @Temperature 23.0 °C	4500 psi @Temperature 73.4 °F	Aluminum, Overlap
	31.0 MPa @Temperature -55.0 °C	4500 psi @Temperature -67.0 °F	Aluminum, Overlap
	1.52 MPa @Temperature 121 °C, Time 900 sec	220 psi @Temperature 250 °F, Time 0.250 hour	Aluminum, Overlap

Mechanical Properties	Metric	English	Comments
	4.83 MPa @Temperature 82.0 °C, Time 900 sec	700 psi @Temperature 180 °F, Time 0.250 hour	Aluminum, Overlap
	6.89 MPa @Time 1800 sec	1000 psi @Time 0.500 hour	Aluminum, Overlap
	9.65 MPa @Time 3600 sec	1400 psi @Time 1.00 hour	Aluminum, Overlap
	17.2 MPa @Time 14400 sec	2500 psi @Time 4.00 hour	Aluminum, Overlap
Peel Strength	4.38 kN/m	25.0 pli	
	7.01 kN/m	40.0 pli	T-Peel, CRS MEK/abrade/MEK, 5-8 mil bondline
	8.77 kN/m	50.0 pli	T-Peel, CRS Oakite degreased, 5-8 mil bondline
	10.5 kN/m	60.0 pli	T-Peel, Etched Aluminum, 17-20 mil bondline
	0.526 - 0.877 kN/m @Temperature 82.0 °C	3.00 - 5.00 pli @Temperature 180 °F	Aluminum, T-Peel
	0.877 - 1.75 kN/m @Temperature -55.0 °C	5.00 - 10.0 pli @Temperature -67.0 °F	Aluminum, T-Peel
	10.5 kN/m @Temperature 23.0 °C	60.0 pli @Temperature 73.4 °F	Aluminum, T-Peel

Thermal Properties	Metric	English	Comments
CTE, linear	59.0 µm/m-°C	32.8 µin/in-°F	Below Tg
	159 µm/m-°C	88.3 µin/in-°F	Above Tg
Thermal Conductivity	0.180 W/m-K @Temperature 45.0 °C	1.25 BTU-in/hr-ft <sup>2</sup> -°F @Temperature 113 °F	

Electrical Properties	Metric	English	Comments
Volume Resistivity	2.40e+14 ohm-cm	2.40e+14 ohm-cm	ASTM D257
Dielectric Strength	43.3 kV/mm	1100 kV/in	ASTM D149

Descriptive Properties	Value	Comments
Appearance	Amber	Accelerator
	Opaque, off-white	
	White	Base

## Contact Songhan Plastic Technology Co.,Ltd.

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