

## 3M Scotch-Weld™ DP810NS Structural Adhesive

Category : Polymer , Adhesive

### Material Notes:

3M™ Scotch-Weld™ Low-Odor Acrylic Adhesives are two-part, 1:1 mix ratio, toughened structural adhesives with less odor than most acrylic adhesives. The adhesives have excellent shear and peel strength along with good impact resistance and durability. They can quickly bond to most metals, ceramics, rubbers, plastics and wood with minimal surface preparation. Information provided by 3M

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_3M-Scotch-Weld-DP810NS-Structural-Adhesive.php](http://www.lookpolymers.com/polymer_3M-Scotch-Weld-DP810NS-Structural-Adhesive.php)

Physical Properties	Metric	English	Comments
Viscosity	90000 - 95000 cP	90000 - 95000 cP	Base
	95000 cP	95000 cP	
	95000 - 100000 cP	95000 - 100000 cP	Accelerator

Mechanical Properties	Metric	English	Comments
Shear Strength	3.45 MPa	500 psi	Overlap at 10 minutes after bonding
	3.45 MPa	500 psi	Overlap, Polycarbonate, Adhesive/Cohesive Failure
	4.48 MPa	650 psi	Overlap, ABS, Adhesive/Cohesive Failure
	5.52 MPa	800 psi	Overlap, Acrylic, Substrate Failure
	6.21 MPa	900 psi	Overlap, Acetone for 14 days, Cohesive Failure
	6.89 MPa	1000 psi	Overlap, PVC, Substrate Failure
	8.62 MPa	1250 psi	Overlap, 71°C 100% RH for 14 days, Mixed Mode of AF&CF
	10.0 MPa	1450 psi	Overlap, 71°C soak for 14 days, Mixed Mode of AF&CF
	12.1 MPa	1750 psi	Overlap at 20 minutes after bonding
	13.1 MPa	1900 psi	Overlap, Green FRP, Cohesive Failure
	14.5 MPa	2100 psi	Overlap, MEK for 14 days, Cohesive Failure
	19.7 MPa	2850 psi	Overlap at 1 hr after bonding
	21.7 MPa	3150 psi	Overlap, Gasoline for 14 days, Cohesive Failure
23.1 MPa	3350 psi	Overlap at 2 hrs after bonding	

Mechanical Properties	Metric MPa	English psi	Comments Stainless Steel, Cohesive Failure
	23.4 MPa	3400 psi	Overlap, Toluene for 14 days, Cohesive Failure
	23.8 MPa	3450 psi	Overlap, IPA for 14 days, Cohesive Failure
	24.1 MPa	3500 psi	Overlap, CRS, Cohesive Failure
	24.1 MPa	3500 psi	Overlap, Oily CRS, Cohesive Failure
	25.5 MPa	3700 psi	Overlap at 2 hrs after bonding
	25.9 MPa	3750 psi	Overlap, 20% Bleach for 14 days, Cohesive Failure
	26.2 MPa	3800 psi	Overlap, 14 days, Cohesive Failure
	26.5 MPa	3850 psi	Overlap, Abraded Aluminum, Cohesive Failure
	26.5 MPa	3850 psi	Overlap at 2 hrs after bonding
	27.6 MPa	4000 psi	Overlap, 50% Antifreeze for 14 days, Cohesive Failure
	27.6 MPa	4000 psi	Overlap at 2 hrs after bonding
	27.9 MPa	4050 psi	Overlap, Diesel Fuel for 14 days, Cohesive Failure
	28.3 MPa	4100 psi	Overlap, Bare Aluminum, Cohesive Failure
	29.0 MPa	4200 psi	Overlap, Etched Aluminum, Cohesive Failure
	3.45 MPa @Temperature 82.0 °C	500 psi @Temperature 180 °F	Overlap
	8.27 MPa @Temperature -55.0 °C	1200 psi @Temperature -67.0 °F	Overlap
	11.0 MPa @Temperature -29.0 °C	1600 psi @Temperature -20.2 °F	Overlap, Adhesion Failure
	16.2 MPa @Temperature 49.0 °C	2350 psi @Temperature 120 °F	Overlap, Cohesive Failure
	27.6 MPa @Temperature 24.0 °C	4000 psi @Temperature 75.2 °F	Overlap
Peel Strength	3.51 kN/m	20.0 pli	T-Peel

Processing Properties	Metric	English	Comments
Cure Time	10.0 - 20.0 min	0.167 - 0.333 hour	Time to Handling Strength
	480 - 1440 min	8.00 - 24.0 hour	Full cure

Descriptive Properties	Value	Comments
Appearance	Blue/Green	Base
	White	Accelerator

## Contact Songhan Plastic Technology Co.,Ltd.

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