

## **3M Scotch-Weld™ LSB60 Toughened Epoxy Adhesives**

Category: Polymer, Thermoset, Epoxy, Epoxy Adhesive

## **Material Notes:**

3M™ Scotch-Weld™ Toughened Epoxy Adhesive LBS60 is a high performance, two-part, toughened epoxy adhesives offering outstanding shear adhesion and very high levels of durability with a choice of flow characteristics. This epoxy has a 90 minute worklife and is a 1:1 mix ratio. Ideal for bulk application through meter mix dispensing equipment and the manufacture of large panel products. Information provided by 3M

## Order this product through the following link:

http://www.lookpolymers.com/polymer\_3M-Scotch-Weld-LSB60-Toughened-Epoxy-Adhesives.php

Physical Properties	Metric	English	Comments
Brookfield Viscosity	17200 cP	17200 cP	Base, RVF #7 sp @ 20 rpm
	68200 cP	68200 cP	Accelerator, RVF #7 sp @ 20 rpm

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	60 - 65	60 - 65	
Shear Strength	3.31 MPa	480 psi	Overlap, Polycarbonate- IPA/abrade/IPA, Adhesive Failure
	13.8 MPa	2000 psi	Overlap, FRP(Green)-IPA/abrade/IPA, Cohesive Failure
	18.6 MPa	2700 psi	Overlap, FRP(Red)-IPA/abrade/IPA, Substrate Failure
	22.1 MPa	3200 psi	Overlap, CRS-MEK/Abrade/MEK, Cohesive/Adhesive Failure
	23.4 MPa	3400 psi	Overlap, Galvanized Steel- MEK/Abrade/MEK, Cohesive/Adhesive Failure
	24.8 MPa	3600 psi	Overlap, Al-MEK/Abrade/MEK, Cohesive Failure
	25.5 MPa	3700 psi	Overlap, Stainless Steel- MEK/Abrade/MEK, Cohesive/Adhesive Failure
	28.3 MPa	4100 psi	Aluminum, etched, Overlap, 30 day Gasoline soak, Cohesive Failure
	31.0 MPa	4500 psi	Aluminum, etched, Overlap, 30 day 65°C/80% RH, Cohesive Failure
	31.7 MPa	4600 psi	Aluminum, etched, Overlap, 30 day water soak, Cohesive Failure
	32.4 MPa	4700 psi	Aluminum, etched, Overlap, 30 day IPA soak, Cohesive Failure



Mechanical Properties	Metric Metric	English English	Aluminum, etched, Overlap, Control, Comments
	23.4 MPa	3400 psi	Aluminum, etched, Overlap, Cohesive Failure
	@Temperature -55.0 °C	@Temperature -67.0 °F	
	31.0 MPa	4500 psi	Aluminum, etched, Overlap, Cohesive
	@Temperature 23.0 °C	@Temperature 73.4 °F	Failure
	2.76 MPa	400 psi	Aluminum, etched, Overlap, Adhesive Failure
	@Temperature 121 °C, Time 900 sec	@Temperature 250 °F, Time 0.250 hour	
	6.21 MPa	900 psi	Aluminum, etched, Overlap, Adhesive Failure
	@Temperature 82.0 °C, Time 14400 sec	@Temperature 180 °F, Time 4.00 hour	
	8.27 MPa	1200 psi	Aluminum, etched, Overlap, Adhesive Failure
	@Temperature 82.0 °C, Time 900 sec	@Temperature 180 °F, Time 0.250 hour	
Peel Strength	9.90 kN/m	56.5 pli	Al to Al, Honeycomb Climbing Drum Peel; ASTM D1781
	0.631 kN/m	3.60 pli	Aluminum, etched, Bell Peel, Cohesive
	@Temperature -55.0 °C	@Temperature -67.0 °F	Failure; ASTM D3167
	2.33 kN/m	13.3 pli	Aluminum, etched, Bell Peel, Adhesive Failure; ASTM D3167
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	2.79 kN/m	15.9 pli	Aluminum, etched, Bell Peel, Adhesive Failure; ASTM D3167
	@Temperature 82.0 °C, Time 14400 sec	@Temperature 180 °F, Time 4.00 hour	

Processing Properties	Metric	English	Comments
Cure Time	300 min	5.00 hour	Time to Handling Strength
	10100 min	168 hour	Full Cure

Descriptive Properties	Value	Comments
Appearance	Dark Gray	Accelerator
	Gray	
	White	Base

## **Contact Songhan Plastic Technology Co.,Ltd.**



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