

## **3M Scotch-Weld™ LSB60NS Toughened Epoxy Adhesives**

Category: Polymer, Thermoset, Epoxy, Epoxy Adhesive

## **Material Notes:**

3M™ Scotch-Weld™ Toughened Epoxy Adhesive LBS60NS 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-LSB60NS-Toughened-Epoxy-Adhesives.php

Physical Properties	Metric	English	Comments
Brookfield Viscosity	24000 cP	24000 cP	Base, RVF #7 sp @ 20 rpm
	97000 cP	97000 cP	Accelerator, RVF #7 sp @ 20 rpm

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	60 - 65	60 - 65	
Shear Strength	2.76 MPa	400 psi	Overlap, Polycarbonate- IPA/abrade/IPA, Adhesive Failure
	14.5 MPa	2100 psi	Overlap, FRP(Green)-IPA/abrade/IPA, Cohesive Failure
	15.2 MPa	2200 psi	Overlap, FRP(Red)-IPA/abrade/IPA, Substrate Failure
	23.4 MPa	3400 psi	Overlap, Galvanized Steel- MEK/Abrade/MEK, Cohesive/Adhesive Failure
	24.1 MPa	3500 psi	Overlap, Al-MEK/Abrade/MEK, Cohesive Failure
	24.1 MPa	3500 psi	Overlap, Stainless Steel- MEK/Abrade/MEK, Cohesive/Adhesive Failure
	24.1 MPa	3500 psi	Aluminum, etched, Overlap, 30 day 65°C/80% RH, Cohesive Failure
	26.9 MPa	3900 psi	Overlap, CRS-MEK/Abrade/MEK, Cohesive/Adhesive Failure
	27.6 MPa	4000 psi	Aluminum, etched, Overlap, 30 day Gasoline soak, 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	<b>English</b>	Aluminum etched, Overlap, Control, Comments
	19.3 MPa	2800 psi	Aluminum, etched, Overlap, Cohesive Failure
	@Temperature -55.0 °C	@Temperature -67.0 °F	
	31.0 MPa	4500 psi	Aluminum, etched, Overlap, Cohesive Failure
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	2.07 MPa	300 psi	Aluminum, etched, Overlap, Adhesive Failure
	@Temperature 121 °C, Time 900 sec	@Temperature 250 °F, Time 0.250 hour	
	5.52 MPa	800 psi	Aluminum, etched, Overlap, Adhesive Failure
	@Temperature 82.0 °C, Time 14400 sec	@Temperature 180 °F, Time 4.00 hour	
	8.96 MPa	1300 psi	Aluminum, etched, Overlap, Adhesive Failure
	@Temperature 82.0 °C, Time 900 sec	@Temperature 180 °F, Time 0.250 hour	
Peel Strength	0.561 kN/m	3.20 pli	Aluminum, etched, Bell Peel, Cohesive
reer Strength	@Temperature -55.0 °C	@Temperature -67.0 °F	Failure; ASTM D3167
	2.03 kN/m	11.6 pli	Aluminum, etched, Bell Peel, Cohesive/Adhesive Failure; ASTM D3167
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	1.93 kN/m	11.0 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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