

TECHNICAL DATA SHEET





TDS No:	TDS003	Issue No:	1
Issue Date:	14/01/14		
Revision Date:	14/07/16		
Page No:	1 of 3		

PRODUCT

NovaWeld SignFix 33

NovaWeld SignFix 33 is a two-component, fast setting, room temperature cure structural polyurethane adhesive system. This sand able adhesive system has an excellent adhesion to wide variety of surfaces.

Features:

-  Fast setting time with convenient 1:1 mix ratio
-  Excellent adhesion to wide variety of surfaces such as:
 - Aluminum, Stainless steel, ABS, PVC, Polyurethane, Composites,
 - Thermoplastics, Thermosetting Plastics, Wood, Glass,
 - Concrete without any use of primer.

Typical Uncured Properties:

	Part A	Part B	Mixed
Colour	Beige	Black	Black
Viscosity @ 250C - Brookfield, cps	30,000	30,000	30,000
Weight per Gallon	11	11	11

Mix Ratio by Volume	1:1
Mix Ratio by Weight	1:1
Working Time	4 - 6 Minutes
Fixture Time	12 -15 Minutes
Functional Cure	20 – 30 minutes
Full Cure	24 hours
Service Temperature	-40F to 250F
Coverage per lb.	94 sq. inch per lb @ ¼"

Typical Cured Properties:

T-Peel Strength	65 – 75 Pli	ASTM D1876
Tensile Elongation	200%	ASTM D638
Shore Hardness	65 – 70 D	ASTM D 2240
Dielectric Strength	350 volts/mil	ASTM D 149
Cure Shrinkage	0.0014 in./in.	ASTM D 2566
Tear Resistance	400 Pli	ASTM D 624
Tensile Strength	2,200 psi	ASTM D 638

Disclaimer

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.

TECHNICAL DATA SHEET

TDS No:	TDS003	Issue No:	1
Issue Date:	14/01/14		
Revision Date:	14/07/16		
Page No:	2 of 3		

PRODUCT**NovaWeld SignFix 33****Lap Shear Strength after 7 days at 25C:**

ABS to ABS	1, 250 psi	Aluminum to Aluminum	2,225 psi
Steel to Steel	2050 psi	Concrete to Concrete	1940 psi
Glass to Glass	4100 psi	GBS to GBS	2750 psi
SMC to SMC	1200 psi	Galvanized Metal to Metal	2840 psi

Off Ratio Performance

NovaWeld SignFix polyurethane adhesives are designed in such a way that off ratio does not affect the final properties of the bond performance. Following table shows the result of the off ratio:

Ratio	Fixture Time	Hardness	Lap Shear Strength
0.8:1	5 - 7 minutes	61D	2,175 psi
1:1	4 - 6 minutes	61D	2,225 psi
1.2:1	3 - 5 minutes	61D	2,300 psi

Aluminum / Aluminum According to ASTM D 1002

Result

The above data shows that there is minor change in the lap shear strength and curing properties of the adhesive when mixed off ratio.

Environmental Resistance

SignFix 33 has excellent resistance to harsh environment conditions. The testing data is as follows:

Condition	Lap Shear Strength & Mode of Failure
Initial	2, 225 psi – Cohesive Failure
Environmental Cycle – 30 days	2, 275 psi – Cohesive Failure

Lap Shear Strength ASTM D 1002 – Aluminum / Aluminum

Environmental Cycle = 8 hours @ -30 OC, 8 hours @ 85 OC, 8 hours @ 30 OC @ 100% Relative Humidity

Disclaimer

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.

TECHNICAL DATA SHEET



TDS No:	TDS003	Issue No:	1
Issue Date:	14/01/14		
Revision Date:	14/07/16		
Page No:	3 of 3		

PRODUCT

NovaWeld SignFix 33

Result

The lap shear strength has increased after environmental cycle. NovaWeld SignFix 33 perform better under these conditions compare to the substrates bonded. Substrates may have less resistance to these conditions compare to adhesive.

Surface Preparation:

Clean surface by solvent-wiping any deposits of heavy grease, oil, dirt, or other contaminants. Surface can also be cleaned with industrial cleaning equipment such as vapour phase degreasers or hot aqueous baths. If working with metal, abrade or roughen the surface to significantly increase the microscopic bond area and increase the bond strength.

Mixing Procedure:

Proper homogenous mixing of resin and hardener is essential for the curing and development of stated strengths.

50 ML/400ML CARTRIDGES

1. Attach cartridge to 50ml or 400ml manual or pneumatic dispensing systems.
2. Open tip.
3. Burp cartridge by squeezing out some material until both sides are uniform (ensures no air bubbles are present during mixing).
4. Attach mix nozzle to end of cartridge.
5. Apply to surface and attach other substrate quickly, as you have 5 minutes of working time to use the product. Substrates can be clamped with a bond line thickness as small as 0.007".

Storage: Store in cool, dry place.

Packaging:

Available in 50 ml, 200 ml and 400 ml dispensing cartridge system.
Bulk packing in 5 gallon and 50-gallon drum.

Disclaimer

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.