

## TECHNICAL DATA SHEET

	TDS No:	<b>TDS484</b>	Issue No:	<b>1</b>
	Issue Date:	<b>20/07/23</b>		
	Revision Date:	<b>20/07/25</b>		
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<b>PRODUCT</b>	<b>NovaWeld SignFix 44</b>			

### Product Description

Signfix 44 structural Acrylic Represents the next generation of structural adhesives, combining primer-less metal bonding and permanent toughness with a huge reduction in bond-line readthrough. The latest adhesion promoter package enables design engineers to access a huge list of compatible substrates from plastics to metals and the latest hybrid composite materials.

### Typical Applications

With a particular focus on the automotive manufacturing industry due to the combination of excellent environmental resistance and its ability to avoid read-through on consumer facing panels and composite sections, this grade sets the benchmark for the industries permanent bonded solution. This grade is manufactured in two cure speeds to accommodate a wide variety of assembly and production operations.

### Instructions for Use

1. Always consult MSDS before using Signfix 44 for the first time.
2. Carry out surface preparation where required.
3. Remove nut, attach mixer nozzle and replace nut.
4. Dispense sufficient adhesive to ensure equal mix and uniform colour.
5. Apply adhesive to one surface and assemble components carefully, clamping if required.
6. It is always easier to remove any excess adhesive prior to cure using a suitable cleaner.
7. Allow the adhesive sufficient time to achieve handling strength before moving or unclamping components.

### Curing Cycle

Once mixed at the 10:1 ratio the working time of the product is the period whereby the adhesive remains fluid and is easily transferable between two or more mating surfaces. Temperature, volume and substrate have a direct effect on the length of this period as the product cures by an exothermic reaction. Higher temperatures and larger volumes speed the reaction causing a reduction in open and cure time. Lower temperatures and smaller volumes slow the reaction time extending both the open time and ultimate full cure time.

Open Time	4-6 min
Fixture Time	12-15 min

### Properties of Uncured Material

Resin	Methacrylate Blend
Colour	Off White / Black
Appearance	Thixotropic Gel
Viscosity Brookfield T Bar	200,000 to 280,000cps
Cure System	Peroxide

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### Performance of Cured Material

ASTM D1002 Lapshear	
Aluminium	<b>21 Nmm<sup>2</sup> Cohesive Failure</b>
Aluminium (Unabraded)	<b>21 Nmm<sup>2</sup> Cohesive Failure</b>
Stainless Steel	<b>21 Nmm<sup>2</sup> Cohesive Failure</b>
Mild Steel	<b>21 Nmm<sup>2</sup> Cohesive Failure</b>
GRP	<b>5.80 Nmm<sup>2</sup> Substrate Failure</b>
ABS	<b>Substrate Failure</b>
Polycarbonate	<b>Substrate Failure</b>
Gap Fill	<b>Up to 10mm</b>
Temperature Range	<b>-55°C to 120°C</b>
Hardness	<b>76 Shore D</b>
UV Stability	<b>Excellent</b>
Elongation at break ASTM D638-02a	<b>30%</b>

### Compatible Substrates

Aluminium	GRP/FRP
Stainless Steel	Granite
Mild Steel	Marble
UPVC	Urethanes
Polyesters	Vinyl Esters
ABS	Galv/Zinc Coated
DCPD	Polycarbonate
Acrylic	ACM Sheet

### Storage and Shelf Life

SignFix 44 should be stored unopened in suitable hazardous storage conditions for adhesives that are in a cool, dry location and out of direct sunlight. Stored correctly, this grade can offer a 9-month shelf life from its manufacture in the UK. The optimum storage condition for this grade is between 6 and 12°C. Storing material outside this range may reduce the overall shelf life of the material.

### Health and Safety in Use

Signfix 44 is a structural methacrylate and should not be used without consulting the MSDS, which contains full information regarding the use of this product, including Transport, Disposal, Toxicological, Exposure Controls, Accidental Release and First Aid measures essential to the safe use of this product.

[www.innovasolutions.co.uk](http://www.innovasolutions.co.uk)

bonding people fixing problems

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All data presented in this sheet are correct at the time of issue and have been determined by Innova Solutions in its own laboratories. The data presented are typical properties obtained by the company over multiple test phases. The data are presented as a guide and a selection tool, these data should not be used in place of thorough evaluation and application testing under anticipated conditions. Specific use, materials and product handling are beyond the control of Innova Solutions Ltd, therefore our warranty is limited to the replacement of defective product.

Contact Multi Supplies 4U sales team on 01282 930195  
or email [info@multisupplies4u.co.uk](mailto:info@multisupplies4u.co.uk) to get a quote for volume discount.