



ENGLISH

Datasheet

# RS Pro Structural Epoxy Adhesive

RS Stock No: 918-1401



RS Pro structural epoxy adhesive is a two part room temperature cure toughened adhesive having high peel and impact strength, and good tolerance to oil contaminated surfaces.

It forms strong, permanent bonds between a wide range of substrates, and industries including:

- . Metals: steel, aluminium, etc.
- . Plastics
- . Structural bonding for the transportation industry
- . Repair of transportation vehicles
- . Electronics
- . Maintenance and repair.

## Features

- . Cures at room temperature
- . High impact and peel strength
- . Excellent resistance to a wide range of chemicals and water
- . Solvent free
- . Mix ratio 1:1

## Physical Properties

Property	Data
Consistency	Paste
Colour	Colourless to pale yellow
Density at 20°C	A: 1.190 g/ cm <sup>3</sup> B: 1.00 g/ cm <sup>3</sup>
Viscosity at 20°C]	A: 10,000 – 15,000 cps B: 28,000 – 35,000 cps
Mix Ratio Part A: Part B	1:1
Pot Life (100 Grams)	20 – 45 min
Full Cure	6 Hours at 40 °C 60 minutes at 75 °C 20 minutes at 100 °C

## Adhesive Performance

The following technical information should be considered as typical only and should not be used for specification purpose.

Bonds of adequate strength for many purposes are obtained by curing at Room Temperature, but to obtain optimum properties the adhesive should be given a post cure at high temperatures.

	Condition	Value
<b>Tensile Shear Strength</b>	25°C - Mild Steel	20 MN/m <sup>2</sup> 24 hours at 25°C
		25 MN/ m <sup>2</sup> 60 minutes at 75°C
		29 MN/ m <sup>2</sup> 20 minutes at 100°C/24 hours at room temperature
<b>Peel Strength</b>	Cured at 25°C/24 hours, 0.3 mm bond line. Mild Steel	5.2 KN/m <sup>2</sup>
<b>Impact Strength</b>	Cured at 25°C	0.3 J/cm

## **Heat Resistance**

When cured at room temperature, bonds will maintain good strengths from -60°C to +70°C. Curing at 100°C will maintain good strengths from -60°C up to + 110°C

## **Surface Preparation**

Ensure that the substrates to be bonded together are dry, clean and free from loose materials, grease and oil.

Recommendations on the preparation of substrate surfaces for effective bonding are detailed below:

. Metals – degrease with cleaner solvent, abrade with emery paper and degrease again.

## **Application**

1. Cut nozzle tips
2. Use plunger to squeeze out required amount on to mixing pad
3. Mix thoroughly and apply to clean, dry surfaces.
4. Hold firmly in place till epoxy has set.
5. Handling time: 6 hours Full strength will be attained in 24 hours.

Increasing the temperature of cure will decrease cure time.

6. Clean nozzles avoiding cross contamination and cover using end cap provided with the plunger.

## **Coverage**

A bond line of medium thickness requires a coverage of 200 grams/metre

## **Storage & Handling**

Should be stored in its original container in dry conditions and at temperatures between 5°C and 25°C.