

SPECIAL PERFORMANCE ADHESIVE

DESCRIPTION

Grade SP-001 is a slow curing general purpose grade adhesive with the following Special Performance properties:
Exceptionally diesel, oil and water resistant.
High strength.
Good chemical and acid resistance
Adheres well to most substrates including rigid plastics.

POTENTIAL APPLICATIONS

Plumbing fittings.
Repair lead acid battery casings.
Repair marine equipment.
Repair mining equipment.
Repair chemical plant components.
Repair swimming pool plumbing components.
Repair rigid plastic casings.

TYPICAL LAP SHEAR ADHESIVE STRENGTHS

25 mm wide specimens, 125 mm² bond area and 60 µ bond gap.

Sanded Aluminium	10 ± 1 Mpa	Nylon 6.6	4 ± 1	Wood	>7 (Wood breaks)
Steel	12 ± 2	Polycarbonate	13 ± 3	Leather	>4 (Leather breaks)
Copper	17 ± 4	Perspex	8 ± 1		
Natural Rubber	0,7 ± 0,2	Rigid PVC	8 ± 2		
Neoprene	1,0 ± 0,2	ABS	7 ± 1		
		Polystyrene	4 ± 1		

CONSISTENCY & COLOUR

Paste like and translucent
Sets hard but tough and very slightly flexible

MIXING RATIOS

1:1 BY VOLUME Resin: Hardener
1,2:1 BY MASS Resin: Hardener
Density of RESIN: 1,14 g/ml^o

TYPICAL BUTT TENSILE ADHESIVE STRENGTH

Steel to steel: 16 ± 4 Mpa
(60 µ bond gap pulled at 50 mm/min)

CHEMICAL RESISTANCE: ONE YEAR FULL IMMERSION

Excellent	Mass increase <2%	:	Diesel Fuel, Motor Oil SAE 30, Transformer Oil, Automatic Transmission Oil
Good	Mass increase 2-5%	:	Battery Acid, Water/Swimming Pool/+detergent, 6% Antifreeze, 10% Sulphuric Acid, 10% Hydrochloric Acid.
Fair-Good	Mass increase 5-7,5%	:	Petrol, 10% Ammonia, 10% Sodium Hydroxide, 10% Nitric Acid.
Fair	Mass increase 7,5-10%:	:	Cutting Oil, Paraffin.
Not recommended		:	Brake fluid (did not crack but mass increase of 28% at 1 month/ +31% at 1 year) Acetone (attacked at 1 day & cracked) Toluene (attacked at 1 day & cracked)

GEL AND CURE TIMES

This depends on mass and temperature but gel time is 45 minutes at 20 gram mass at 25 °C ambient temperature.

Two 250 ml portions of Special Performance Adhesive resin and hardener, when mixed together, (500 ml) will start gelling with a central core in 16 minutes at 25 °C ambient temperature.

A handling bond will be achieved in 75 min at 25 °C.

Full strength will be obtained after 3 days.

TEMPERATURE RESISTANCE

GRADE - SP001 Adhesive should not be used at temperatures continuously greater than 65 °C.