

## Three Bond 1521 Synthetic Rubber Adhesive

Three Bond 1521 is a multi-purpose, high strength, fast setting chloroprene rubber adhesive. It is suitable for bonding a wide range of substrates including metals, rubbers and plastics, gives high initial bond strength and elasticity after setting. TB1521 is widely used as a contact adhesive in various applications such as bonding automotive sound insulating material, carpets, plastic and interior trim, decorative laminates and so on.

### Features

Materials which can be bonded:

- Metals (Iron, Aluminium, Duraluminium, Brass, etc.)
- Plastics (Polyvinylchloride, Polymethacrylic, Phenolic resin, Polystyrene, Ebonite, etc.)
- Non-metals (Wood, fabrics, leather, ceramics, paper, concrete, mortar, etc.)
- Natural and synthetic rubbers (CR, SBR, EPDM, NBR, etc.)  
(Note: The product is not suitable for bonding Polyethylene, Polypropylene and Fluororesin.)

### Properties

Property	Result	Unit
Base	Chloroprene rubber	
Solvent	Toluene, n-Hexane	
Colour	Amber	
Viscosity at 25°C	2,800	mPa·s
Density at 25°C	0.91	g/cm <sup>3</sup>
Flash point	-20	°C
Solids content	26	%
Set to touch time (25°C, 80% RH)	8 ~ 10	min
Tack retain time (25°C, 80% RH)	8 ~ 30	min
Shelf life at 25°C	24	Months

### Bonding strength

Condition	Open time	Result	Unit
Peel strength			
Neoprene/Fe	7 min	0.9	kN/m
Neoprene/Fe	10 min	1.4	kN/m
Neoprene/Fe	20 min	1.8	kN/m
Neoprene/Fe	30 min	2.1	kN/m
NBR/Fe	30 min	3.8	kN/m
Canvas/canvas	30 min	7.3	kN/m
Canvas/Fe	30 min	5.2	kN/m
Vinylcloth/Fe	30 min	3.7	kN/m
Shear strength			
Hardboard/hardboard	30 min	2.5	MPa
Veneer/veneer	30 min	3.4	MPa

### Directions for Use

- Surfaces must be clean, dry and free from oil or greasy deposits.
- Stir well before use. After long term storage a precipitated layer may form but this does not mean the cement is no longer usable.
- Apply a thin even coat to one or both surfaces by brush, knife, or other spreading method. Coating both surfaces is preferred since it improves bond strength and permits longer open time.
- Coverage is approximately 3m<sup>2</sup>/kg for a dry film thickness of 0.1mm.
- Absorbant surfaces may require more than one coat. Bond whilst adhesive is still wet or aggressively tacky.
- For non-porous surfaces allow the adhesive to dry until it is tacky. Join the surfaces with firm pressure.
- Open time for one surface application is 5 minutes or 30 minutes for two surfaces application. This drying time depends on temperature, humidity, and the porosity of the materials to be bonded.
- Reactivation bonding method:  
Re-moistening method: Allow the surfaces to dry completely. After the solvent has completely evaporated apply a small amount of adhesive to give renewed tackiness and bond in the normal manner. This method gives greater immediate strength.  
Heat reactivation method: Allow the surfaces to dry completely. Join the surfaces and heat in an oven, press or under lamps at 120°C, maintaining adequate pressure to ensure intimate contact of the surfaces, whilst allowing sufficient time for the transfer of heat through mating parts to the adhesive film. Surfaces may be pre-coated in this way several days before final reactivation.
- TB 1521 is highly flammable.  
Use only in well ventilated areas.  
Store in a cool, dark place in its original container tightly sealed to maintain shelf life.

### Packaging

150 ml tube and 1kg, 15kg and 160 kg containers (special packing on request).