

# TECHNICAL DATA SHEET

# A **NEW FORCE** IN CHEMICAL MANUFACTURING

AEROSOLS | WELDING CHEMICALS | ADHESIVES & THREADLOCKERS | ANTI-SEIZE & GREASES | CLEANING CHEMICALS & SOLVENTS | ELECTRICAL & ELECTRONICS

Issued: August 2020

# Rapidstick™ 8401 Cyanoacrylate Adhesive

PART NUMBER	AVAILABLE SIZE
8401-10	10g Brush Bottle
8401-20	25ml Bottle
8401-50	50g Bottle
8401-500	500g Bottle

#### **PRODUCT DESCRIPTION**

Chemtools® Rapidstick™ 8401 Cyanoacrylate Adhesive is specifically formulated to bond difficult surfaces with high industrial strength. It is ideal for a wide variety of industrial manufacturing and repair applications that have rough, porous, or acidic surfaces.

Common bonding surfaces include balsa wood, rubbers, plastics, metals, ceramics, and leather.

8401 meets Military Specification MIL-A-46050 Type II, Class II.

#### **DIRECTIONS (READ LABEL BEFORE USE)**

All surfaces must be clean, dry, and free of dust and grease. Best results will be achieved with surfaces that have been lightly abraded immediately prior to bonding. Thin bond lines favour high cure speed. Increasing the bond gap will slow down the rate of cure.

Apply a thin film of adhesive to both surfaces to be bonded. If using an Accelerator, apply to one component surface only, and apply a thin film of adhesive to the other. Bring the pieces together immediately. Hold for up to 6 seconds without disturbing the joints.

When bonding O-rings, cut a fresh surface onto each end of the rubber to gain the best possible strength.





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## **TECHNICAL DATA**

#### **BONDING TIMES:**

Plastics	2 – 5 seconds	Rubbers	< 3 seconds
Wood	1 – 5 seconds	Leather	5 – 15 seconds
Metals	8 – 10 seconds	Ceramics	12 – 18 seconds

#### **LIQUID PROPERTIES:**

Composition Ethyl Cyanoacrylate **Appearance** Colourless liquid Viscosity @ 25°C Brookfield LVF 80 - 120 cps

#### **CURED ADHESIVE PROPERTIES:**

**Gap Filling** Up to 0.2 mm **Tensile Shear Strength** 18 - 28 N/mm<sup>2</sup> Service Temperature Range -60°C to +80°C **Full Cure** 24 hours **Melting Point Temperature** 160°C to 170°C

#### **MECHANICAL PROPERTIES:**

Glass Transition Temperature, ASTM E228 122°C Dielectric Strength, ASTM D149, V/mil 625 90 x 10<sup>-6</sup> Coefficient of Thermal Expansion, ASTM D696, K-1 Coefficient of Thermal Conductivity, ASTM C177, W.m<sup>-1</sup>.K<sup>-1</sup> 0.1

### Shear Strength (ASTM D 1002/DIN 53283)

**Grit Blasted Steel**  $> 20 \text{ N/mm}^2$ **Etched Aluminium** > 18 N/mm<sup>2</sup> Rubbers  $> 22 \text{ N/mm}^2$ > 25 N/mm<sup>2</sup> Wood Polycarbonate > 12 N/mm<sup>2</sup> ABS  $> 10 \text{ N/mm}^2$ 

### **CHEMICAL RESISTANCE PROPERTIES:**

		% Initial Strength Retained	
Chemical	Temperature	500 hours	1,000 hours
Isopropanol	22°C	85	85
Petrol	22°C	80	75
Motor Oil	40°C	90	90
Mineral Spirit	22°C	90	90



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## **FIRST AID & SAFETY PRECAUTIONS**

Please refer to Safety Data Sheet (SDS) before use. Use with adequate ventilation and avoid breathing fumes. Avoid contact with eyes and skin. This product may produce adverse health conditions, ranging from minor skin irritation to serious systemic effects. It should not be used, stored, or transported until the handling precautions and recommendations as stated in the Safety Data Sheet (SDS) for this product have been fully understood by all persons who will work with the material.

### **STORAGE**

Keep out of reach of children. Store in a sealed container in a cool, dry place (between -2°C and 8°C). Do not return any unused material to its original container.

Containers must be secured and stored upright during transit.

### **DISCLAIMER**

Chemtools® has made every effort to ensure the information provided in this Technical Data Sheet is accurate at the time of publication. Chemtools® expressly recommends that the user make his/her own assessment to determine the suitability of the product for its intended purpose prior to application. Chemtools shall not be responsible for loss, damage, or injury, resulting from the reliance upon, or failure to adhere to, any recommendations or information contained herein; nor from abnormal use of the material; nor from any hazard inherent in the nature of the material.

## **FURTHER INFORMATION**

Please visit Chemtools® online at <a href="https://www.chemtools.com.au">www.chemtools.com.au</a> for product photos, marketing materials, Technical Data Sheets, Safety Data Sheets, contact details, and other company/business related information.