# CHEMTOOLS

## A NEW FORCE IN CHEMICAL MANUFACTURING

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# **TECHNICAL DATA SHEET**

**AUGUST 2014** 

### **PRODUCT NAME**

8406 Cyanoacrylate Adhesive

## **PACKAGING OPTIONS**

Part Number Available Size

8406-20 20g 8406-50 50g 8406-500 500g



Refer to MSDS for product safety guidelines

# 8406 Wicking Grade Cyanoacrylate Adhesive

Chemtools® 8406 is low viscosity combined with fast cure speed, surface insensitive cyanoacrylate adhesive (CA). It is specifically formulated to bond difficult surfaces with high industrial strength.

#### **APPLICATIONS:**

- Ideal for bonding rough, porous and acidic surfaces including Wood, Cardboard, Balsa Wood, Rubbers, Plastics, Metals, Leather, etc.
- Wide variety of industrial manufacturing and repairing applications

#### **BONDING TIMES:**

Plastics2 - 5 secondsRubbers< 3 seconds</th>Wood1 - 5 secondsLeather5 - 15 secondsMetals8 - 10 secondsCeramics12 - 18 seconds

#### **LIQUID PROPERTIES:**

Composition Ethyl Cyanoacrylate Appearance Colourless liquid

Viscosity @ 25°C (Brookfield LVF, Spindle 1 @ 30 rpm) 20 cps

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

Gap Filling0.05 mmTensile Shear Strength $18 - 28 \text{ N/mm}^2$ Service Temperature Range $-60 \text{ to } +80 ^{\circ}\text{C}$ Full Cure24 hoursMelting Point Temperature $160 \text{ to } 170 ^{\circ}\text{C}$ 

#### **MECHANICAL PROPERTIES:**

#### Shear Strength (ASTM D1002/DIN 53283)

Grit Blasted Steel	> 20 N/mm <sup>2</sup>
Etched Aluminium	> 18 N/mm <sup>2</sup>
Rubbers	> 22 N/mm <sup>2</sup>
Wood	> 25 N/mm <sup>2</sup>
Polycarbonate	> 12 N/mm <sup>2</sup>
ABS	> 10 N/mm <sup>2</sup>

#### **PHYSICAL PROPERTIES:**

Coefficient of Thermal Conductivity, ASTM C177, W.m <sup>-1</sup> .K <sup>-1</sup>	0.10
Coefficient of Thermal Expansion, ASTM D696, K <sup>-1</sup>	75 x 10 <sup>-6</sup>
Glass Transition Temperature, ASTM E228	122°C
Dielectric Strength, ASTM D149, kV/mm	27
Dielectric Constant, 25°C, ASTM D150	2.7
Volume Resistivity, ASTM D257, Ohm.cm	$1 \times 10^{16}$

#### **APPLICATION INSTRUCTIONS:**

- All surfaces must be clean, dry, dust and grease free. Best result will be achieved with surfaces that have been lightly abraded immediately prior to bonding.
- If using accelerator apply to one component surface only. Apply thin film of adhesive to the other surface and bring the pieces together immediately. Hold for few 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.

#### PRECAUTIONS:

This product is capable of producing adverse health effects ranging from minor skin irritation to serious systemic effects. None of these materials should be used, stored, or transported until the handling precautions and recommendations as stated in the Material Safety Data Sheets (MSDS) for this and all other products being used are understood by all persons who will work with the material.

#### **WARRANTY:**

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