



# TECHNICAL DATA SHEET

A NEW FORCE IN CHEMICAL MANUFACTURING

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

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## Rapidstick 8680 Retaining Compound

PART NUMBER	AVAILABLE SIZE
8680-10	10ml Bottle
8680-50	50ml Bottle
8680-250	250ml Bottle

### PRODUCT DESCRIPTION

Chemtools® Rapidstick 8680 Retaining Compound is a fast curing, high strength, medium viscosity compound for cylindrical joints that prevents loosening and leakage due to vibration and shock. It develops high strength rapidly when confined in the absence of air between close fitting metal surfaces.

8680 is designed for filling gaps with up to 0.15mm diameter clearance. It is typically used for retaining sleeves, pulleys, gears, rotors, and fans on shafts, as well as securing bushings, bearings, and plugs in housings. It is an excellent retaining, sealing, and threadlocking compound.

### DIRECTIONS (READ LABEL BEFORE USE)

#### ASSEMBLY:

For best results, ensure all internal and external surfaces are cleaned with a cleaning solvent prior to application. If the material is an inactive metal, or the cure speed is too slow, spray with an Activator and allow to dry.

For Slip Fitted assemblies: Apply adhesive around the leading edge of the pin and the inside of the collar, and use a rotating motion during assembly to ensure good coverage.

For Press Fitted assemblies: Apply adhesive thoroughly to both bond surfaces and assemble at high press on rates.

For Shrink Fitted assemblies: The adhesive should be coated onto the pin, and the collar then heated to create sufficient clearance for free assembly.

Parts should not be disturbed until sufficient handling strength is achieved.

#### DISASSEMBLY

Apply localized heat to the assembly to approximately 250°C. Disassemble while hot.



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### TECHNICAL DATA

#### ADHESIVE PROPERTIES:

Composition	Methacrylate Ester
Colour	Green
Consistency	Liquid
Viscosity @ 25°C (Brookfield RVT, Spindle 3 @ 20 rpm)	1,200 cps (med)
Specific Gravity	1.11
Maximum Diameter of Thread/Gap Filling	0.15 mm
Flash Point	> 93°C
Solvent Content	None
Shelf Life	1 Year

#### CURING PROPERTIES:

Handling Cure Time	10 minutes
Functional Cure Time	1 – 3 hours
Full Cure Time	24 hours
Temperature Range	-54°C to +148°C

#### Compressive Shear Strength - ISO 10123

After 24 hours at 22°C (Steel Pins and Collars)	> 29 N/mm <sup>2</sup> (4,000 psi)
After 30 minutes at 22°C (Steel Pins and Collars)	> 16 N/mm <sup>2</sup> (2,100 psi)

#### PHYSICAL PROPERTIES:

Coefficient of Thermal Conductivity, ASTM C177, W/m.K	0.10
Coefficient of Thermal Expansion, ASTM D696, K <sup>-1</sup>	80 x 10 <sup>-6</sup>
Specific Heat, kJ/kg.K	0.30

#### CHEMICAL RESISTANCE PROPERTIES:

Chemical	Temperature	% Initial Strength Retained	
		500 hours	1,000 hours
Acetone	22°C	100	95
Ethanol	22°C	100	100
Motor Oil	125°C	100	100
Petrol	22°C	100	100
Brake Fluid	22°C	100	100
Water/Glycol	87°C	100	98



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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 8°C - 27°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 [www.chemtools.com.au](http://www.chemtools.com.au) for product photos, marketing materials, Technical Data Sheets, Safety Data Sheets, contact details, and other company/business related information.