



A NEW FORCE IN CHEMICAL MANUFACTURING

Unit 2, 14-16 Lee Holm Road
St Marys NSW 2760
Australia

Ph: 1300 738 250 (Australia)
Ph: +61 2 9833 9766 (International)
Fax: 02 9623 3670

sales@chemtools.com.au
www.chemtools.com.au

TECHNICAL DATA SHEET

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PRODUCT NAME

8620 High Viscosity, High Strength Retaining Compound

PRODUCT RANGE

Part Number	Available Size
8620-10	10 ml
8620-50	50 ml
8620-250	250 ml



Refer to MSDS for product safety guidelines

8620 High Viscosity, High Strength Retaining Compound

Chemtools® 8620 is a high viscosity, high strength anaerobic retaining compound for cylindrical fitting parts, particularly where bond gaps can approach 0.25mm. High temperature resistance up to 200°C. This retaining compound is a single component anaerobic adhesive, which develops high strength rapidly when confined in the absence of air between close fitting metal surfaces.

APPLICATIONS:

- Ideal to fill gaps up to 0.25mm diameter clearance.
- High temperature resistance up to 230°C
- Used for locating pins in radiator assemblies.
- Retains sleeves into pump housings and bearings in auto transmissions

ADHESIVE PROPERTIES:

Composition	Urethane Methacrylate
Appearance	Green
Viscosity @25°C (Brookfield RVT Spindle 4 @ 25 rpm)	8,400 cps
Specific Gravity	1.16
Maximum Diameter of Thread/Gap Filling	0.25 mm
Flash Point	> 93°C
Solvent Content	None
Shelf Life	1 Year

CURING PROPERTIES:

Handling Cure Time	10 minutes
Functional Cure Time	2 - 4 hours
Full Cure Time	24 hours
Temperature Range	-55 to 150°C
Compressive Shear Strength (After 24 hrs @ 22°C) - (ISO 10123) Steel Pins & Collars	17 - 19 N/mm ² (3,125 psi)

Compressive Shear Strength (After 30 mins @ 22°C)

- (ISO 10123) Steel Pins & Collars

13 - 15 N/mm² (1,960 psi)

PHYSICAL PROPERTIES:

Coefficient of Thermal Expansion, ASTM D696, K⁻¹

80 x 10⁻⁶

Coefficient of Thermal Conductivity, ASTM C177, W/m.K

0.10

Specific Heat, kJ/kg.K

0.30

CHEMICAL RESISTANCE PROPERTIES:

Chemical	Temperature	% Initial Strength Retained	
		500 hours	1000 hours
Acetone	22°C	95	90
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	85	80

APPLICATION INSTRUCTIONS:

For Assembly

- For best results, clean all surfaces (external and internal) with a cleaning solvent and allow solvent to evaporate.
- If the material is an inactive metal or the cure speed is too slow, spray with Activator 8071 or 8049 and allow drying.
- 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 should then be heated to create sufficient clearance for free assembly.
- Parts should not be disturbed until sufficient handling strength is achieved.

For Disassembly

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

STORAGE:

Anaerobic adhesives shall be ideally stored in a cool, dry place in unopened containers at a room temperature between 7°C to 28°C. Please do not return any unused material to its original container.

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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