



# 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™ 8277 Threadlocker

PART NUMBER	AVAILABLE SIZE
8277-10	10ml Bottle
8277-50	50ml Bottle
8277-250	250ml Bottle

### PRODUCT DESCRIPTION

Chemtools® Rapidstick™ 8277 Threadlocker is a fast curing, high strength, permanent compound that eliminates the need for double nutting and welding. It prevents corrosion and leakage, and has high resistance to heat, vibrations, water, gases, oils, hydrocarbons, and many chemicals.

8277 is ideal for the locking and sealing of larger bolts and studs, and prevents loosening and leakage from shock, or vibration from moving components, such as transmissions, engine block studs, and valve sets. It can also be used for the retaining of cylindrical parts.

8277 performs best in thin bond gaps, and is specifically formulated to give controlled friction and torque/tension ratio during assembly. It meets Military Specification MIL-S-43163A Type 1, Grade L

### DIRECTIONS (READ LABEL BEFORE USE)

All surfaces must be clean, dry, and free of dust and grease.

Apply to the bolt in sufficient quantity to fill threads.

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### TECHNICAL DATA

#### LIQUID PROPERTIES:

Composition	Methacrylate Ester
Appearance	Red
Viscosity @ 25°C, Brookfield RVT, Spindle 3, 20 rpm	7,000 cps
Maximum Diameter of Thread/Gap Filling	25mm (1")
Specific Gravity	1.11
Flash Point	> 100°C
Solvent Content	None
Shelf Life	2 years from the date of manufacture

#### CURED ADHESIVE PROPERTIES:

Service Temperature Range	-55°C to +150°C
Handling Cure Time	30 minutes
Functional Cure Time	2 – 4 hours
Full Cure Time	24 hours

#### MECHANICAL PROPERTIES:

Coefficient of Thermal Expansion, ASTM D696, K <sup>-1</sup>	80 x 10 <sup>-6</sup>
Coefficient of Thermal Conductivity, ASTM C177, W.m <sup>-1</sup> .K <sup>-1</sup>	0.1
Specific Heat, kJ/Kg.K	0.3
Compressive Shear Strength, ISO 10123, Steel Pins and Collars	9 N/mm <sup>2</sup> / 1,300 psi

#### Torque, ISO 10964, M10 Steel Nuts and Bolts

Breakaway Torque	32 N.m. / 280 lb.in.
Prevail Torque	32 N.m. / 280 lb.in.
Break Loose Torque, Pre-Torqued to 5 N.m.	38 N.m. / 340 lb.in.
Max Prevail Torque, Pre-Torqued to 5 N.m.	40 N.m. / 350 lb.in.

#### CHEMICAL RESISTANCE PROPERTIES:

Chemical	Temperature	% Initial Strength Retained	
		500 hours	1,000 hours
Acetone	22°C	95	95
Ethanol	22°C	95	95
Motor Oil	125°C	100	100
Petrol	22°C	100	100
Brake Fluid	22°C	90	90
Water/Glycol	87°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. 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.

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