



# 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™ 8270 Threadlocker

| PART NUMBER | AVAILABLE SIZE |
|-------------|----------------|
| 8270-10     | 10ml Bottle    |
| 8270-50     | 50ml Bottle    |
| 8270-250    | 250ml Bottle   |

#### PRODUCT DESCRIPTION

Chemtools® Rapidstick™ 8270 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.

8270 offers excellent performance on even, oily surfaces. It is ideal for fasteners with diameters of up to 25mm (1"), and fasteners used on vibrating machines or moving components, such as transmissions, engine block studs, and valve sets. It can also be used for the retaining of cylindrical parts.

8270 performs best in thin bond gaps, and is specifically formulated to give controlled friction and torque/tension ratio during assembly.

8270 meets Military Specifications:

- MIL-S-46163A Type I, Grade K
- MIL-S-22473E Letter Grade CVV

#### 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                                          | Green                 |
| Viscosity @ 25°C, Brookfield RVT, Spindle 3, 20 rpm | 500 – 800 Thixotropic |
| Maximum Diameter of Thread/Gap Filling              | 25mm (1")             |
| Specific Gravity                                    | 1.11                  |
| Flash Point                                         | > 100°C               |

#### CURED ADHESIVE PROPERTIES:

|                           |                 |
|---------------------------|-----------------|
| Service Temperature Range | -55°C to +150°C |
| Handling Cure Time        | 10 minutes      |
| Functional Cure Time      | 1 – 3 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                      | > 8 N/mm <sup>2</sup> / 1,000 psi |

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

|                                           |                      |
|-------------------------------------------|----------------------|
| Breakaway Torque                          | 28 N.m. / 230 lb.in. |
| Prevail Torque                            | 31 N.m. / 320 lb.in. |
| Break Loose Torque, Pre-Torqued to 5 N.m. | 40 N.m. / 330 lb.in. |
| Max Prevail Torque, Pre-Torqued to 5 N.m. | 57 N.m. / 510 lb.in. |

#### CHEMICAL RESISTANCE PROPERTIES:

| Chemical     | Temperature | % Initial Strength Retained |             |
|--------------|-------------|-----------------------------|-------------|
|              |             | 500 hours                   | 1,000 hours |
| Acetone      | 22°C        | 95                          | 90          |
| Ethanol      | 22°C        | 100                         | 100         |
| Motor Oil    | 125°C       | 95                          | 95          |
| Petrol       | 22°C        | 100                         | 100         |
| Brake Fluid  | 22°C        | 100                         | 100         |
| Water/Glycol | 87°C        | 90                          | 80          |



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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.