

## DELTA D508

### *Medium strength Thread Locking Adhesive*

**DELTA D508** is a fast curing, medium strength anaerobic thread locking compound for bonding and sealing threads, and retaining of cylindrical parts.

**DELTA D508** is highly resistant to heat, vibrations, water, gases, oils, hydrocarbons and many chemicals.

#### **Applications:**

- Ideal for thread locking plated parts, vibration or moving components.
- Ideal for fasteners between ¼" and ¾" (6 to 20 mm) diameters.
- Locks and seals threaded joints-nuts, screws, and studs with improved oil resistance.
- Meets 90% of all nut and bolt thread locking applications.
- Meets Military Specification: Mil-S-46163A Type II, Grade N

#### **Physical Properties:**

|   |                       |
|---|-----------------------|
| Composition:  | Dimethacrylate Ester  |
| Color:  | Blue                  |
| Viscosity@ 25°C:<br>Brookfield RVT<br>Spindle3 @ 20 rpm | 2,250 Thixotropic cps |
| Specific Gravity:                                       | 1.07                  |
| Maximum Diameter<br>of Thread/Gap Filling:              | 3/4 "/ 0.20 mm        |
| Flash Point:  | > 100 °C              |
| Solvent Content:  | None                  |
| Shelf Life:   | 1 year                |



# TECHNICAL DATA SHEET

## Curing Properties:

|                       |                          |
|-----------------------|--------------------------|
| Handling Cure Time:   | 10-12 minutes            |
| Functional Cure Time: | 1-3 hours                |
| Full Cure Time:       | 24 hours                 |
| Shear Strength:       | 8 - 12 N/mm <sup>2</sup> |
| Locking Torque        |                          |
| --Break               | 15 – 25 N.m              |
| --Prevailing          | 5 – 10 N.m               |
| Breakloose Torque     | 15 – 35 N.m              |
| Max. Prevail Torque   | 15 – 35 N.m              |
| Temperature Range     | -50°C to 150°C           |

## Material Physical Properties:

|   |                       |
|---|-----------------------|
| Coefficient of Thermal Expansion, K <sup>-1</sup><br>ASTM D 696 | 80 x 10 <sup>-6</sup> |
| Coefficient of Thermal Conductivity<br>ASTM C 177, W/m.K        | 0.10                  |
| Specific Heat, kJ/(kg·K)  | 0.30                  |

## Chemical Resistance:

| Chemical     | Temp.  | % Initial Strength Retained |            |
|--------------|--------|-----------------------------|------------|
|              |        | 500 hours                   | 1000 hours |
| Acetone      | 22 °C  | 100                         | 90         |
| Ethanol      | 22 °C  | 100                         | 100        |
| Motor Oil    | 125 °C | 100                         | 100        |
| Gasoline     | 22 °C  | 100                         | 100        |
| Brake Fluid  | 22 °C  | 100                         | 100        |
| Water/Glycol | 87 °C  | 90                          | 80         |



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### **Application Method:**

Surfaces should be dry, clean, and free of any contamination using D406 Surface Preparation Cleaner. Apply the product liberally to the threaded surface of the fixing, ensuring complete coverage. To increase the cure speed, spray the uncoated surface with Activator D405 and allow to dry. Using standard practices, assemble and wrench tighten fittings until correct torque is obtained. Maximum strength and resistance properties will be achieved after approximately 24 hours.

### **General Information:**

This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected as an adhesive for contact with chlorine or other strong oxidizing materials.

### **Storage:**

Anaerobic adhesives shall be ideally stored in a cool, dry place in unopened containers at a room temperature between 5 °C to 25 °C. Please do not return any unused material to its original container.

### **Health and Safety:**

This product and the auxiliary materials normally combined with it are 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:** All products purchased from or supplied by Delta are subject to terms and conditions set out in the contract. Delta warrants only that its product will meet those specifications designated as such herein or in other publications. All other information supplied by Delta is considered accurate but are furnished upon the express condition the customer shall make its own assessment to determine the product's suitability for a particular purpose. Delta makes no other warranty, either express or implied, including those regarding such other information, the data upon which the same is based, or the results to be obtained from the use thereof; that any product shall be merchantable or fit for any particular purpose; or that the use of such other information or product will not infringe any patent.