

1. Pre-applied thread locking / Sealant adhesive

DRI-LOC^â is an adhesive that applied on threaded metallic surfaces (e.g.. bolt, stud, etc.) forms a take free plastic film. **DRI-LOC^â** is activated by assembly forces, releasing anaerobic adhesive from microscopic traps into the plastic film that cures between the threads, due to absence of air, locking and sealing them.

Threaded male parts coated with **DRI-LOC^â** are feasible and economical for small and medium volume users. **DRI-LOC^â** is a high locking/sealing strength product that meets IFI 125 and IFI 525 specifications.

| Physical Properties Before Curing | | Physical Properties After Curing | |
|-----------------------------------|--|--|-------------------------|
| Resin | Dimethacrylic - Anaerobic | Resin | Polimethacrylic - solid |
| Color | Blue | Shear Strength daN/Cm² | |
| Flash Point (°C) | > 100 - open cup | Break (Rq) | 100-150 (Note 1) |
| Corrosion | none - MIL 22473 D | Prevail (Rr) | 90 - 110 (Note 2) |
| Toxicity | low | Temp. Res. (° C) | Fig. 2 |
| Curing Time | Initial 5 - 10 minutes - Fig. 1 Final 24 hours - Fig. 2 | Vibration Res. | Fig. 3 |
| Removal | Chlorinated Solvents | Aging | Fig. 4 |
| Shelf-life (20±5°C) | 24 months | | |

The above mentioned specification, as physical properties after curing, were determined by laboratorial tests, after 24 hours cure at room temperature applied on 3/8" - 24UNF SAE 5 nuts.

Note 1 (Rq) - Values determined by reading of breakaway torque at the moment that **DRI-LOC^â** plastic film breaks.

Note 2 (Rr) - Values determined by reading of breakaway arithmetic mean at 1/4, 1/2, 3/4 and 1 nut turning steps, after break-loose.

2. Torque/Tension relationship (nut/bolt)

The tensile strength on a bolt can be determined by the control of applied torque. The torque/tension relationship is expressed by the following formulas:

$$T = KDF$$

T = tightening torque in Nm (Newton. meter)

F= Tensile strength in N (Newton)

D = Bolt nominal diameter in m (meter)

K = Friction Factor

Despite being related to the friction, the friction factor K differs from the first and is experimentally determined. The factor K measured in 3/8" - 24 UNF bolts, coated with **DRI-LOC^â** is K = 0.226 while measured in the same bolt, slightly oily is K = 0.183.

Determination of torsion strength in relation to bolt/nut areas:

$$\text{Break } T_q = 2.A.Rq.r$$

$$\text{Prevail } T_r = 2.A.Rr.r$$

Formula for specified maximum and minimum values should be used in order to determine the warranty range and respective safety rate.

Data for formula application:

A = application area of the product ($A = \pi.d.h$).

r = radius of bolt

2 = constant for threads area calculation

All values gotten from the above formulas have to be corrected by the graphics in fig. 2.

3. Chemical Resistance - Good resistance to water, acids, gases, organic solvents and lubricants

All data and directions stated have informative objective. They were gotten in accordance with the best knowledge and experiences made up to now. However, we cannot assume responsibility for results which processes and methods have not been submitted to our appreciation.

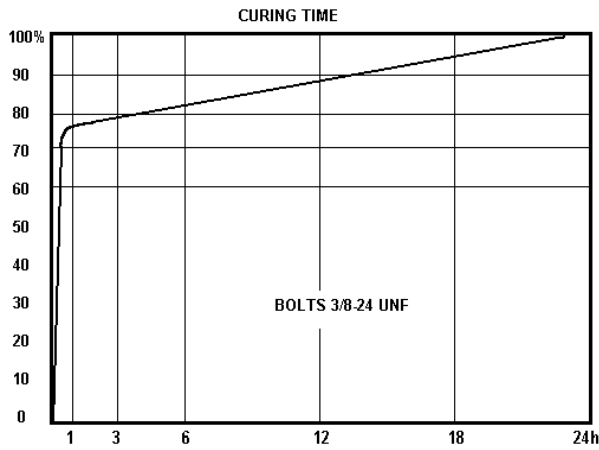


FIG. 1

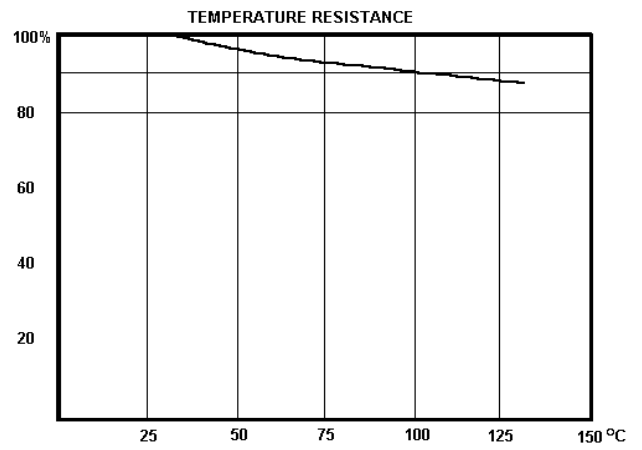


FIG. 2

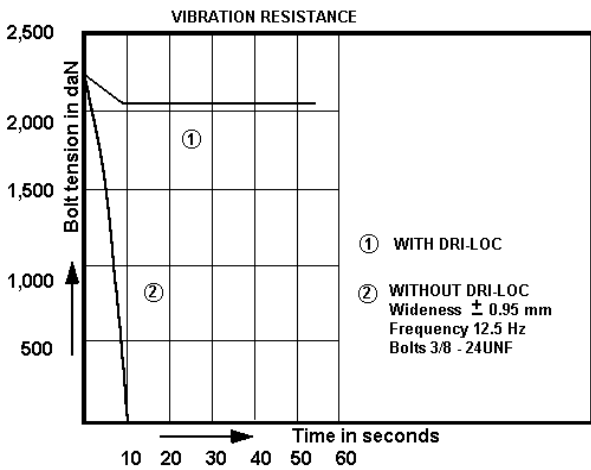


FIG. 3

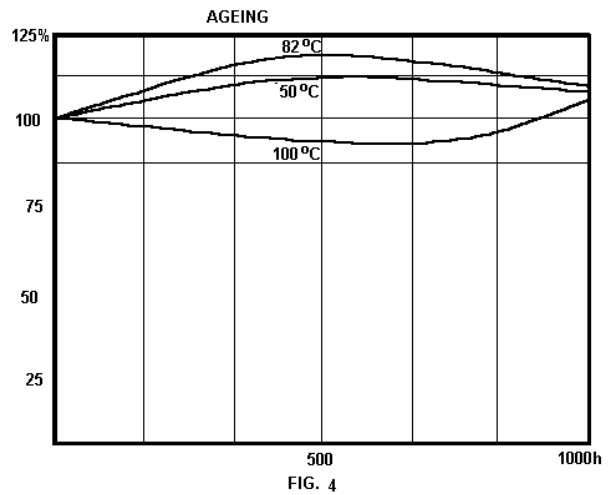


FIG. 4