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## TECHNICAL DATA SHEET

### Anaerobic Thread Locking Compound

*Inter-Lock #22* is a removable, **PURPLE**, fast curing, low strength, anaerobic thread-locking compound for bonding and sealing small screw threads. It is highly resistance to heat, vibrations, water, gases, oils, hydrocarbons and many chemicals. Easy disassembly.

*Product Number / Size:*

724	1.5 Gram Tube
722	10 mL Bottle
723	50 mL Bottle

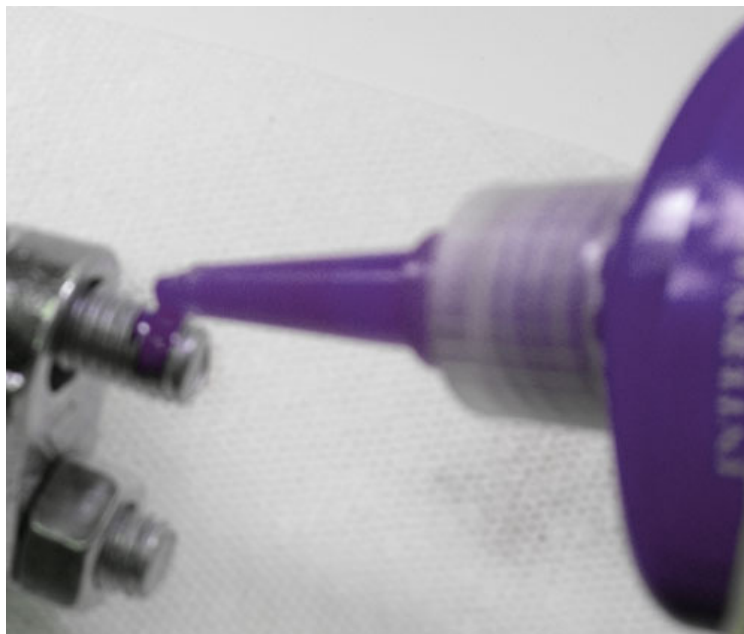
#### Application

- Ideal for thread locking small screws from loosening under vibration.
- Ideal for fastening of 1/4" (6mm) and smaller diameters.
- Specifically suitable for applications such as adjustment of set screws and small diameter fasteners where easy disassembly is required.
- Meets Military specifications: MIL-S-46163 Type II Grade M

#### *DIRECTIONS FOR USE*

##### **For assembly:**

1. Clean all threads (Bolt and Hole) with a cleaning solvent such as *IES #1700* or *IES #4700 Super Clean* and allow to dry.
2. Determine if the threads to be bonded are **Active** or **Inactive Metals** (Ref: Cure Speed vs. Substrate on the second page). If material is an **Inactive Metal**, it may be necessary to coat all threads with *#700 Primer / Activator* and allow 30 seconds to dry. Priming is not required if the material is an **Active Metal**. If unknown, it is always best to use the primer.
3. Shake Inter-Lock thoroughly before use.
4. To prevent the product from clogging in the nozzle, do not allow the tip to touch metal surfaces during application.
5. **For Thru Holes**, apply several drops of product onto the bolt at the nut engagement area.



**For Blind Holes**, apply several drops down the female threads into the bottom of the hole. As threads are engaged, compressed air forces the product upwards into the threads.

6. Assemble and tighten as usual. When tightening to established torque values, torque compensation is not required.

**For Disassembly**

1. Remove with standard hand tools.
2. In the rare instance where hand tools do not work, because of excessive engagement length, apply heat to the nut or bolt to approximately 232° C (450° F). Disassemble while hot.

*TYPICAL CURING PERFORMANCE*

**Cure speed vs. substrate**

The rate of cure will depend on the material used. *Inter-Lock #22 PURPLE* will react faster and stronger with **Active Metals**. However, **Inactive Metals** may require the use of *IES #700 Primer / Activator* to obtain maximum strength and cure speed at room temperature.

Active Metals	Inactive Metals
Soft Steel Iron	Some Platings
Copper	Anodized Surfaces
Brass	Titanium
Manganese	Zinc
Bronze	Pure Aluminum
Nickel	Stainless Steel
Aluminum Alloy	

**Cure speed vs. temperature**

The rate of cure will depend on the ambient temperature. **Full cure** is attainable in 24 hours at room temperature, 22°C (72°F), or 1 hour at 93°C (200°F).

**Cure speed vs. primer**

To shorten fixture time or if an inactive surface is present, applying *#700 Primer / Activator* to the surface will improve fixture speed. A 3/8-16 steel nut and bolt assembly will fixture in 5 minutes using a primer, while fixturing will occur in 20 minutes without a primer. Full cure in 24 hours for both procedures.

*CHEMICAL PROPERTIES*

**Physical Properties**

<u>Description</u>	<u>Specification</u>
<b>Composition</b>	Methacrylate Ester
<b>Color</b>	Purple
<b>Viscosity</b>	1000 cps at 25 ° C
<b>Specific Gravity</b>	1.1
<b>Maximum Diameter of Thread/Gap Filling</b>	1/4"/ 6 mm
<b>Flash Point</b>	>100 ° C
<b>Solvent Content</b>	None
<b>Shelf Life</b>	1 year

**Curing Properties**

<u>Description</u>	<u>Specification</u>
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<b>Handling Cure Time</b>	10 minutes
<b>Functional Cure Time</b>	1-3 hours
<b>Full Cure Time</b>	24 hours
<b>Shear Strength</b>	<b>3</b> - 5 N/mm <sup>2</sup>
<b>Locking Torque</b>	
- Break	4 - 8 N.m
- Prevailing	2 - 4 N.m
- Temperature Range	-65 TO 300 ° F

### 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

### Application Method

Surfaces should be dry, clean, and free of any contamination. Thread locker should be applied to the bolt in sufficient quantity to fill threads. *Inter-Lock #22* performs the best in thin bond gaps. This thread locker is specifically formulated to give controlled friction and torque/tension ratio during assembly.

### Storage

Anaerobic adhesives shall be ideally stored in a cool, dry place in unopened containers at a room temperature between 46 ° F to 82 ° F. Please do not return any unused material to its original container.

**PRECAUTIONS:** 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

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