



## Tough Technology Products

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Leading Edge Technology



# T-Lock 3

## TTP Thread Lock TLK2003

Medium fast setting 10 - 20 mins  
Medium strength Locking Gap filling up to 0.1mm  
For sealing cracks and locking assembled parts  
Thread locking Temperature range -55c to + 150c  
A thread lock with Superb capillary properties

### Product Description

T-Lock3 is a single component, very low viscosity anaerobic thread locking compound with wicking capabilities. T-Lock3 cures when confined in the absence of air between close-fitting metal surfaces.

### Typical Applications

T-Lock3 is formulated to be a very low viscosity anaerobic thread locking compound, which means it can be used as a post-assembly adhesive to wick into preassembled parts. Because of its very low viscosity, T-Lock3 can be used for some interference fit retaining applications. T-Lock3 can also be used as a porosity sealant for cast components.

### Technical Information

Chemical type- [ ] [ ] [ ] [ ] [ ]	Dimethacrylate [ ] [ ] [ ] [ ]
Appearance- [ ] [ ] [ ] [ ] [ ]	Light Green
Specific Gravity [ ] [ ] [ ] [ ] [ ]	~1.07
Viscosity cPs (Range) [ ] [ ] [ ] [ ] [ ]	7 - 12
[ ] (Typical Value) [ ] [ ] [ ] [ ] [ ]	10
Breakaway Torque N/m Range [ ] [ ] [ ] [ ] [ ]	7 - 21 [ ] [ ] [ ] [ ] [ ]
Typical [ ] [ ] [ ] [ ] [ ]	16 N/m Range
Prevail Torque N/MRange [ ] [ ] [ ] [ ] [ ]	25 - 44 [ ] [ ] [ ] [ ] [ ]
Typical [ ] [ ] [ ] [ ] [ ]	34
Initial Fixture Time (mins) [ ] [ ] [ ] [ ] [ ]	15
Full Cure [ ] (Hrs) [ ] [ ] [ ] [ ] [ ]	24
Flash Point [ ] (°C) [ ] [ ] [ ] [ ] [ ]	> 100
Max Gap Fill [ ] (mm) [ ] [ ] [ ] [ ] [ ]	0.15
Shelf Life @ 21°C (Months) [ ] [ ] [ ] [ ] [ ]	12
Temp Range °C Continuous [ ] [ ] [ ] [ ] [ ]	-50 to +150

ISO 3104/3105  
On M10 black oxide steel bolt and M10 bright steel nut,  
ISO 10964  
ISO 10964

#### Curing Performance

Typical curing speed as % of final strength

15 mins ~Finger Tight  
1 Hour ~50% strength  
24 hours 100% strength

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## Cure speed & Substrate

Cure speed and strength vary according to the substrates. When used on mild steel and brass components anaerobic adhesives will reach full strength more rapidly than more inert materials such as stainless steel and zinc dichromate.

Anaerobic adhesives only cure in the absence of air and with metal part activation.

## Cure Speed & Bond Gap

The size of the bond gap greatly affects the speed of cure of anaerobic adhesives. Bond gap varies with thread type and size of the fastener. The larger the gap between threads, the slower the cure speed. Maximum recommended gap for T-Lock3 is 0.1mm. which will give approximately the cure schedule as detailed in the properties table.

## Cure Speed & Temperature

All figures relating to cure speed are tested at 21°C. Lower temperatures will result in slower cure. Heating the assembled parts accelerates the curing process.

## Typical Environmental Resistance

### Hot Strength

T-Lock3 is suitable for use at temperatures up to 150°C. At 130°C the bond strength will be 70% of the strength at 21°C.

### Heat Ageing

T-Lock3 retains 60% full strength when heated to 100°C for 90 days then cooled and tested at 21°C.

## Chemical / Solvent Resistance

TTP anaerobics exhibit excellent chemical resistance to most oils and solvents including motor oil, leaded petrol, brake fluid, acetone, ethanol, propanol and water. Anaerobic adhesives and sealants are not recommended for use in pure oxygen or chlorine lines.

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## Storage

Optimal storage conditions are between 8°C and 21°C. Storage outside this temperature range can adversely affect product properties and may affect the stated shelf life.

## Presentation

Bottles: ... . . . . . 50ml.  
(When packed an air space above the product is vital to maintain stability.)

## General Information

### Data Ranges

The data contained in this data sheet may be reported as typical value and/or range. Values are based on actual test data and are verified on a regular basis.

## Limitations

T-Lock3 is not recommended on certain plastics as stress cracking can sometimes result. Some anti corrosion chemicals inhibit the cure system in this type of anaerobic. Trials are recommended to establish whether cleaning of the parts is necessary.

## Disclaimer

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