

# THREADLOCKING

Developed from the latest technology, SAF-T-LOK thread locking adhesives are designed to provide performance characteristics that others only talk about. SAF-T-LOK has been the primary supplier of threadlockers to the Space Program and the US Military as well as leading edge industries. SAF-T-LOK Anaerobic Adhesive/Sealants reliably lock and seal metal assemblies in a wide range of applications. Anaerobic products cure to a tough resilient plastic shim in the absence of air and presence of metal. By safely holding components they eliminate loosening and costly breakdowns and damage to equipment from vibration and shock, thus providing a SAF-T factor in engineering design.

Selection of the correct grade will:

- Reduce product assembly cost
- Prevent part loosening
- Eliminate fluid leakage
- Assure removability
- Improve equipment reliability

SAF-T-LOK thread locking adhesives are provided in a broad range of strengths and viscosities. The following is a tabulation of the general purpose threadlocking adhesives including key properties:



## PROPERTIES & BENEFITS

### T22—Low Strength/Adjustable

- Does not migrate on parts
- Holds small nuts and screws
- Seals medium size threaded parts
- Remove with normal tools
- Holds torque tension specs
- Low strength for longer threads
- Allows screw adjustment

### T42—Medium Strength/Removable

- Fast cure and oil tolerant
- Locks nuts and screws
- Seals medium size threaded parts
- Remove with normal tools
- Holds torque tension specs
- Prevents vibration loosening
- Chemical resistant
- Prevents keyway backlash

### T43—Medium Strength/Removable (Thicker than T42)

- Does not migrate on parts
- Fast cure and oil tolerant
- Locks nuts and screws
- Seals medium size threaded parts
- Remove with normal tools
- Holds torque tension specs
- Prevents vibration loosening
- Chemical resistant

### T62—High Strength

- Locks studs, nuts and bolts
- Does not migrate on parts
- Fast cure and oil tolerant
- Only removable with heat
- Holds torque tension specs
- Prevents vibration loosening
- Chemical resistant

## Tested per ML-S-46163 or ASTM D5363

Typical Properties	T22	T42	T43	T62	T70	T72	T77
Viscosity	1200 Thixotropic	1800 Thixotropic	5000 Thixotropic	2000 Thixotropic	500	8000	7000
Gap Filling	.005	.006	.008	.008	.008	.010	.010
Torque Strength (in.lb.) 3/8-16 steel cleaned							
Breakaway	50	150	150	200	300	245	265
Prevailing	30	50	50	110	285	200	200
Cure Time with Primer T							
Fixture (min.)	5	5	5	5	5	5	5
Cure (hr.)	1	1	1	1	2	5	2
Cure Time without Primer							
Fixture (min.)	30	5	5	20	60	60	60
Cure (hr.)	6	4	4	8	8	24	24
Lock Shear (psi)	600	1200	1200	2500	3500	2500	2500
Temperature Limit (°F)	350	350	350	350	350	450	350
Technical Data Sheet for complete info.	T22	T42	T43	T62	T70	T72	T77

SAF-T-LOK threadlocking adhesives fill the inner space between metal parts. The clear parts shown in this brochure provide a visual of the products in service.

**T70—High Strength/Permanent**

- Locks studs to 1/2" diameter
- Very chemical resistant
- Eliminates vibration loosening
- Only removable with heat
- High break & prevailing strength
- Seals against corrosion

**T72—High Temperature**

- Locks studs, nuts and bolts
- Does not migrate on parts
- Only removable with heat
- Holds torque tension specs
- Prevents vibration loosening
- Chemical resistant

**T77—High Strength/Thick**

- Locks studs over 1/2" diameter
- Very chemical resistant
- Eliminates vibration loosening
- Only removable with heat
- Seals against corrosion
- Gasket sealant to .005"

A complete line of products to meet Military Specifications MIL-S-22473 and MIL-S-46163 as well as ASTM D5363 are available with Certificates of Conformance.

Available packaging of SAF-T-LOK Products by item number is shown on page 23-25.



**SAF-T-LOK Military & ASTM Specifications for Threadlocking, Retaining & Sealing**

MIL-S-46163 Classification	SAF-T-LOK Product	ASTM D5363 Classification	MIL-S-22473	SAF-T-LOK	ASTM D5363
<b>Type I</b>			Grade A	A	AN0121
Grade J	T41	AN0231	Grade AA	AA	AN0111
Grade K	T70	AN0221	Grade AV	AV	AN0123
Grade L	T77	1120A	Grade AVV	AVV	AN0124
<b>Type II</b>			Grade B	B	AN0131
Grade M	T22 Thixotropic	AN0311	Grade C	C	AN0141
Grade N	T42 Thixotropic	AN0321	Grade CV	CV	AN0142
Grade O	T62 Thixotropic	AN0331	Grade CVV	CVV	AN0143
<b>Type III</b>			Grade D	D	AN0122
Grade R	S90	AN0261	Grade E	E	AN0151
<b>MIL-R-46082</b>			Grade EV	EV	AN0152
Type I	R01	AN0411	Grade H	H	AN0161
Type II	R41	AN0412	Grade HV	HV	AN0162
Type III	R80	AN0421	Grade HVV	HVV	AN0163
			Grade JV	JV	AN0171

