



# Scotch-Weld™ Anaerobic Threadlocker TL70

## Product Data Sheet

Updated : February 2010  
Supersedes :September 2008

**Product Description** Scotch-Weld TL70 is a single component, high strength (permanent) anaerobic threadlocker. TL70 cures when confined in the absence of air between close-fitting metal surfaces.

**Key Features** Scotch-Weld TL70 is formulated to lock all metal fasteners and thus prevent vibration loosening and leakage through the threads. TL70 is particularly suitable for larger threaded fasteners, e.g. studs and all applications where maximum strength is needed. TL70 prevents corrosion of assembled parts.

### Physical Properties

<b>Chemical Type</b>	Dimethacrylate
<b>Appearance</b>	Green
<b>Specific Gravity</b>	1.04
<b>Viscosity cPs</b>	Range 400 – 600 Typical Value 500

### Performance Characteristics

<b>Maximum Gap Fill</b>	0.20mm
<b>Fixture Time</b>	≤15mins
<b>Full Cure</b>	24hrs
<b>Strength Build Up</b>	15 mins = Finger tight 1 hours = ~40% strength 24hours = 100% strength
<b>Breakaway Torque N.m</b> (ISO 10964)	Range 17 – 66 Typical 37
<b>Prevail Torque N.m</b> (ISO 10964)	Range 20 – 66 Typical 36.5
<b>Chemical compatibility</b>	Anaerobic adhesives and sealants should not be used in pure oxygen or chlorine lines.
<b>Service Temperature Range</b>	-50 to +150°C

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<b>Additional Product Information</b>	Anaerobic adhesives only cure in the absence of air and with metal part activation. Adhesive outside the joint will remain uncured and may be wiped away with a cloth. Scotch-Weld TL70 is suitable for most standard diameter, medium to coarse-threaded screws, nuts and bolts. 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. Scotch-Weld AC64 Activator may be required on plated parts.
<b>Application Techniques</b>	Ensure parts are clean, dry and free from oil and grease. Apply adhesive to all engaged threads. Assemble parts and allow to cure. Wipe excess adhesive from outside of joint. Heating the assembled parts accelerates the curing process. Scotch-Weld AC64 Activator may be used to accelerate cure and should be used if the application temperature is below 5°C. The use of an accelerator may reduce the final bond strength by up to 30%
<b>Storage Conditions</b>	Keep the adhesive in a cool, dry place away from direct sunlight. Under such conditions shelf life at room temperature will be 12 months. Refrigeration to 5°C gives optimum storage stability.
<b>Shelf Life</b>	12 months from date of despatch by 3M when stored in the original carton at 21°C
<b>Precautionary Information</b>	Refer to product label and material Safety Data Sheet for health and safety information before using the product. For information please contact your local 3M Office. <a href="http://www.3M.com">www.3M.com</a>
<b>For Additional Information</b>	To request additional information or to arrange for sales assistance, call 0870 6080050 Address correspondence to: 3M United Kingdom PLC, 3M House, 28 Great Jackson Street, Manchester, M15 4PA
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Values presented have been determined by standard test methods and are average values not to be used for specification purposes. Our recommendations on the use of our products are based on tests believed to be reliable but we would ask that you conduct your own tests to determine their suitability for your applications. This is because 3M cannot accept any responsibility or liability direct or consequential for loss or damage caused as a result of our recommendations

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