



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

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

Performance Characteristics

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

Additional Product Information	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.
Application Techniques	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%
Storage Conditions	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.
Shelf Life	12 months from date of despatch by 3M when stored in the original carton at 21°C
Precautionary Information	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. www.3M.com
For Additional Information	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
Important Notice	All statements, technical information and recommendations contained in this document are based upon tests or experience that 3M believes are reliable. However, many factors beyond 3M's control can affect the use and performance of a 3M product in a particular application, including the conditions under which the product is used and the time and environmental conditions in which the product is expected to perform. Since these factors are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for the user's method or application. All questions of liability relating to this product are governed by the terms of the sale subject, where applicable, to the prevailing law
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	

3M and Scotch-Weld are trademarks of the 3M Company.

3M United Kingdom PLC
3M House,
28 Great Jackson Street,
Manchester,
M15 4PA

Product Information :

Tel 0870 60 800 50
Fax 0870 60 700 99

3M Ireland Limited
The Iveagh Building
The Park, Carrickmines
Dublin 18,
Ireland

Customer Service :

Tel (01) 280 3555
Fax (01) 280 3509