



Scotch-Weld™ Anaerobic Threadlocker TL43

Product Data Sheet

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Supersedes :September 2008

Product Description Scotch-Weld TL43 is a general purpose, medium-high strength, thixotropic anaerobic threadlocker. The product cures when confined in the absence of air on close-fitting metal surfaces.

Key Features Scotch-Weld TL43 is formulated to lock all metric and imperial nuts and bolts, preventing vibration loosening and leakage through the threads. TL43 is slightly oil tolerant, so it will bond some `as received` parts, but best results are obtained with clean substrates. The thixotropic nature of the product prevents run off, dripping and migration after assembly. TL43 is typically used on mounting bolts, housing screws, etc. Scotch-Weld TL43 prevents corrosion of assembled parts.

Physical Properties

Chemical Type	Dimethacrylate
Appearance	Blue
Specific Gravity	1.04
Viscosity cPs (Brookfield RVT, spindle 2, 2.5rpm)	Range 10,000-18,000 Typical Value 14,000
Viscosity cPs (Brookfield RVT, spindle 2, 20rpm)	Range 2,300-4,300 Typical Value 3,300

Performance Characteristics

Maximum Gap Fill	0.30mm
Fixture Time	≤15mins
Full Cure	24hrs
Strength Build Up	15 mins = finger tight 1 hour = ~60% strength 24hours = 100% strength
Breakaway Torque N.m (ISO 10964)	Range 12 – 25 Typical 19
Prevail Torque N.m (ISO 10964)	Range 5 – 15 Typical 10
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	<p>Anerobic 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.</p> <p>Scotch-Weld TL42 is suitable for most medium and 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.</p>
Application Techniques	<p>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 acclerator may reduce the final bond strength by up to 30%</p>
Storage Conditions	<p>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.</p>
Shelf Life	<p>12 months from date of despatch by 3M when stored in the original carton at 21°C</p>
Precautionary Information	<p>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</p>
For Additional Information	<p>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</p>
Important Notice	<p>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.</p> <p>All questions of liability relating to this product are governed by the terms of the sale subject, where applicable, to the prevailing law</p>
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