



Scotch-Weld™ Anaerobic Threadlocker TL90

Product Data Sheet

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Supersedes: September 2008

Product Description Scotch-Weld TL90 is a single component, very low viscosity anaerobic threadlocker. TL90 cures when confined in the absence of air between close-fitting metal surfaces.

Key Features Scotch-Weld TL90 is formulated to be a very low viscosity anaerobic threadlocker, which means it can be used as a post-assembly adhesive to wick into pre-assembled parts. Because of its very low viscosity, TL90 can be used for some interference fit retaining applications. TL90 can also be use a porosity sealant for cast components.

Physical Properties

Chemical Type	Dimethacrylate
Appearance	Light Green
Specific Gravity	1.07
Viscosity cPs	Range 7-12 Typical Value 10

Performance Characteristics

Maximum Gap Fill	0.15mm
Fixture Time	≤15mins
Full Cure	24hrs
Strength Build Up	15 mins = Finger tight 1 hour = ~50% strength 24hours = 100% strength
Breakaway Torque N.m (ISO 10964)	Range 7 – 20 Typical 16
Prevail Torque N.m (ISO 10964)	Range 25 – 50 Typical 34
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>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.</p> <p>Scotch-Weld TL90 is suitable for most standard diameter, fine to medium-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 accelerator 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>

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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