



# Scotch-Weld™ Retaining Compound RT48

## Product Data Sheet

Updated :February 2010  
Supersedes :September 2008

**Product Description** Scotch-Weld RT48 is a single component, highest strength, anaerobic retaining compound. RT48 is a fast curing that develops high strength quickly and will withstand higher service temperature than standard products. RT48 cures when confined in the absence of air between close-fitting metal surfaces.

**Key Features** Scotch-Weld RT48 is formulated for bonding cylindrical parts, to give very high strength bonds. Typical applications include mounting gears and rotors on the shafts. RT48 is designed to augment the strength of press fit assemblies. Once applied, parts slip together easily, lubricated by the adhesive. RT48 prevents corrosion of assembled parts.

<b>Physical Properties</b>	<b>Chemical Type</b>	Dimethacrylate/Triacrylate
	<b>Appearance</b>	Green
	<b>Specific Gravity</b>	~1.08
	<b>Viscosity cPs</b>	Range 400 –800 Typical Value 600

<b>Performance Characteristics</b>	<b>Maximum Gap Fill</b>	0.20mm
	<b>Fixture Time</b>	10mins
	<b>Full Cure</b>	24hrs
	<b>Strength Build Up</b>	15 mins = 10% strength 45 mins = ~50% strength 24hours = 100% strength
	<b>Breakaway Torque N.m (ISO 10964)</b>	Range 18 – 40 Typical 29
	<b>Prevail Torque N.m (ISO 10964)</b>	Range 11 – 45 Typical 30
	<b>Shear Strength N/mm<sup>2</sup> (ISO 10123)</b>	Range 20 – 33 Typical 28
	<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>	<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 RT48 is suitable for high strength retaining applications that require small to medium gap filling. RT48 is 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>
<b>Application Techniques</b>	<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. 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>
<b>Storage Conditions</b>	<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>
<b>Shelf Life</b>	<p>12 months from date of despatch by 3M when stored in the original carton at 21°C</p>
<b>Precautionary Information</b>	<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. <a href="http://www.3M.com">www.3M.com</a></p>
<b>For Additional Information</b>	<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>
<b>Important Notice</b>	<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. 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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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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