



# Scotch-Weld™ Anaerobic Pipe Sealant HP42

## Product Data Sheet

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Supersedes: March 2007

**Product Description** Scotch-Weld HP42 is a single component medium strength, anaerobic pipe sealant. HP42 cures when confined in the absence of air between close-fitting metal surfaces.

**Key Features** Scotch-Weld HP42 is formulated to lock and seal fine to medium pipe threads, particularly for hydraulic and pneumatic pipe systems, up to 15mm pipe diameter. HP42 prevents vibration loosening and leakage through the pipe threads. HP42 is formulated to give medium strength break and prevail torque on assembled joints, thus enabling easier disassembly and servicing. Pipe joints made with HP42 should be fully torqued up within a maximum of 10 minutes from initial assembly. HP42 will give a rapid low pressure seal (after 20 mins).

<b>Physical Properties</b>	<b>Chemical Type</b>	Dimethacrylate
	<b>Appearance</b>	Brown
	<b>Specific Gravity</b>	1.05
	<b>Viscosity cPs</b>	Range 400 -0600 Typical Value 500

<b>Performance Characteristics</b>	<b>Maximum Gap Fill</b>	0.20 mm
	<b>Fixture Time (ISO10964)</b>	15 minutes
	<b>Full Cure</b>	24 hours
	<b>Strength Build Up</b>	15 mins = Finger Tight 1 hour = -50% strength 24 hours = 100% strength
	<b>Breakaway Torque (N.m)</b>	Range 8 – 18 Typical 13
	<b>Prevail Torque (N.m)</b>	Range 7 -14 Typical 10
	<b>Heat Resistance</b>	Suitable for use at temperatures up to 150°C. When tested at 130°C the bond strength will be approximately 30% of the full strength at 21°C.
	<b>Operating 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>HP42 is suitable for most pipe threads of fine to medium pitch, up to a pipe diameter of 15mm. HP42 will not cure outside the joint and is virtually non-fouling in most types of hydraulic systems. HP42 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. AC64 Activator may be required on plated parts.</p>
<b>Application Techniques</b>	<p>Apply adhesives to all engaged threads. Assemble parts and allow to cure. Wipe excess adhesive from outside of joint.</p> <p>Product is normally hand applied from the bottle. Dispensing systems are available to high volume assembly applications.</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.</p> <p>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 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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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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