



Scotch-Weld™ Anaerobic Pipe Sealant HP42

Product Data Sheet

Updated :February 2010
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).

Physical Properties

Chemical Type	Dimethacrylate
Appearance	Brown
Specific Gravity	1.05
Viscosity cPs	Range 400 -0600 Typical Value 500

Performance Characteristics

Maximum Gap Fill	0.20 mm
Fixture Time (ISO10964)	15 minutes
Full Cure	24 hours
Strength Build Up	15 mins = Finger Tight 1 hour = -50% strength 24 hours = 100% strength
Breakaway Torque (N.m)	Range 8 – 18 Typical 13
Prevail Torque (N.m)	Range 7 -14 Typical 10
Heat Resistance	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.
Operating 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. 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.
Application Techniques	Apply adhesives to all engaged threads. Assemble parts and allow to cure. Wipe excess adhesive from outside of joint. Product is normally hand applied from the bottle. Dispensing systems are available to high volume assembly applications.
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, please see below for contact details.
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 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 Svenska AB
Industri**

Bollstanäsvägen 3
191 89 Sollentuna
Tel: 08-92 21 00
Fax: 08-92 22 88
E-post:
kundservice@mmm.com
www.3M.se/lim

**3M a/s
Industri**

Hannemanns Allé 53
2300 København S
Tlf.: 43 48 01 00
Fax.: 43 20 15 65
E-mail:
dkindustri@mmm.com
www.3Mindustri.dk

**3M Norge AS
Avd. Industri**

Hvamveien 6
2013 Skjetten
Tel: 0 63 84
Fax: 63 84 17 88
E-post:
Kundeservice@mmm.com
www.3M.no/lim

**Suomen 3M Oy
Teollisuustuotteet**

PL 600
Keilaranta 6
02151 Espoo
Puh: 09-525 21
Fax: 09-525 2279
<http://www.3M.fi/teollisuus>