



Scotch-Weld™ Pipe Sealant PS77

Product Data Sheet

Updated : February 2010
Supersedes : September 2008

Product Description Scotch-Weld PS77 is a single component, medium strength, anaerobic pipe sealant. PS77 is a thixotropic pipe sealant that cures quickly on steel pipes. Scotch-Weld PS77 cures when confined in the absence of air between close-fitting metal surfaces.

Key Features Scotch-Weld PS77 is formulated to lock and seal medium to coarse straight and tapered pipe threads on pipes of diameter from 15mm to 80mm. PS77 prevents vibration loosening and leakage through the pipe threads. PS77 is formulated to give medium strength break torque, but lower prevail torque on assembled joints, thus enabling easier disassembly and servicing. Pipe joints made with PS77 should be fully torqued up within a maximum of 15 minutes from initial assembly. PS77 will give a rapid low pressure seal (after 20 mins).

Physical Properties

Chemical Type	Dimethacrylate
Appearance	Fluorescent Yellow
Specific Gravity	1.12
Viscosity cPs (Brookfield RVT spindle 5, 2.5rpm)	Range 35,000 – 60,000 Typical Value 48,000
Viscosity cPs (Brookfield RVT spindle 5, 20rpm)	Range 10,000 – 20,000 Typical Value 15,000

Performance Characteristics

Maximum Gap Fill	0.25mm
Fixture Time	15mins
Full Cure	24hrs
Strength Build Up	15 mins = Finger tight 1 hours = ~40% strength 24hours = 100% strength
Breakaway Torque N.m (10964)	Range 8-18 Typical 16
Prevail Torque N.m (10964)	Range 2-10 Typical 4.5
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>PS77 is suitable for most straight and tapered pipe threads of medium to coarse pitch, for pipe diameters from 15mm to 80mm. PS77 will not cure outside the joint and is virtually non-fouling in most types of pipe systems. PS77 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>
Application Techniques	<p>Ensure parts are clean, dry and free from oil and grease. Apply adhesive to all engaged threads, although to minimise excess adhesive inside the joint, apply adhesive only to the male part, leaving the first two threads clear. Assemble parts and allow to cure. Wipe excess adhesive from outside of joint.</p> <p>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>
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.</p> <p>Refrigeration to 5°C gives optimum storage stability.</p>
Shelf Life	12 months from date of despatch by 3M when stored in the original carton at 21°C
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.....</p> <p>www.3M.com</p>
For Additional Information	To request additional information or to arrange for sales assistance, please see below for contact details.
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. 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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