

Protac 5842 Hydraulic Sealant

Product description

Protac 5842 is a single component, medium strength, anaerobic pipe sealant. 5842 cures when confined in the absence of air between close-fitting metal surfaces.

Typical applications

Protac 5842 is formulated to lock and seal fine to medium pipe threads, particularly for hydraulic and pneumatic pipe systems, up to 15mm pipe diameter. Protac 5842 prevents vibration loosening and leakage through the pipe threads. 5842 is formulated to give medium strength breakloose and prevailing torque on assembled joints, thus enabling easier disassembly and servicing. Pipe joints made with 5842 should be fully torqued up within a maximum of 10 minutes from initial assembly. 5842 will give an almost instant low pressure seal (up to 2 bar after 20mins.) and when fully cured will seal up to the bursting pressure of the pipe (e.g. 10,000psi).

Properties of material

Chemical type	Di-Methacrylate
Appearance	Brown
Specific Gravity	1.04
Viscosity cPs (Range) ¹	400-600
Typical value	500
Breakaway Torque (N.m) ³	8-18
Typical range	13
Prevail Torque (N.m) ²	7-14
Typical value	10
Fixture Time ³	≤15
Full Cure @ 20°C(hours)	24
Flash Point (°C)	>100
Shelf Life @ 20°C (months)	12
Max Gap Fill (mm)	0.20
Operating temp. Range (°C)	-50 to +150

1 Brookfield RVT, spindle 2, 2.5rpm

2 On M10 black oxide steel bolt and M10 bright steel nut, ISO10964

3 ISO 10964

Typical curing speed, % of final strength:-

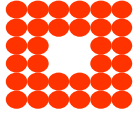
15 mins Finger tight

1 hour~ 50% strength

24 hours 100% strength

Cure speed vs. substrate

Cure speed and strength vary according to the substrates. When used on mild steel and brass components anaerobic adhesives will reach full cure faster than more inert materials such as stainless steel and zinc dichromate. Protac AC32 activator may be used to accelerate cure speed.



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Cure speed vs. bond gap The size of the bond gap greatly affects the speed of cure of anaerobic adhesives. Bond gap varies with thread type and size of the fastener. The larger the gap between threads, the slower the cure speed. Maximum recommended gap for 5842 is 0.20mm.

Cure speed vs. temperature All figures relating to cure speed are tested at 22°C. Lower temperatures will result in slower cure. Heating the assembled parts accelerates the curing process. Activator AC32 should be used when the temperature is less than 5°C.

Typical environmental resistance

Hot strength Protac 5842 is suitable for use at temperatures up to 150°C. At 130°C the bond strength will be ~30% of the strength at 21°C.

Heat ageing Protac 5842 retains ~85% full strength when heated to 100°C for 90 days then cooled and tested at 22°C.

Chemical / Solvent Resistance Protac anaerobic adhesives exhibit excellent chemical resistance to most oils and solvents including motor oil, leaded petrol, brake fluid, acetone, ethanol, propanol and water. Anaerobic adhesives are not recommended for use in pure oxygen or chlorine lines.

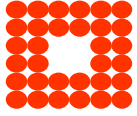
Chemical	Temp.	% Initial Strength Retained	
		500 hours	1000 hours
Acetone	22 C	80	80
Ethanol	22 C	100	95
Motor Oil	125 C	100	100
Petrol	22 C	100	95
Brake Fluid	22 C	100	95
Water/Glycol	87 C	90	90

General information For safe handling of this product consult the Material Safety Data Sheet.

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.

5842 is suitable for most fine and 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. AC32 Activator may be required on plated parts.

Directions for use 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.



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Storage	Store in a cool area out of direct sunlight. Refrigeration to 5°C gives optimum storage stability.
Packaging	Bottles: 50ml and 250ml. Available in bulk for use with dispensing systems.
Data ranges	The data contained in this data sheet may be reported as typical value and/or range. Values are based on actual test data and are verified on a regular basis.
Notes	The information contained herein is produced in good faith and is believed to be reliable but is for guidance only. Novachem Ltd. and its agents cannot assume liability or responsibility for results obtained in the use of its product by persons whose methods are outside or beyond our control. It is the user's responsibility to determine the suitability of any of the products and methods of use or preparation prior to use mentioned in our literature and furthermore the user's responsibility to observe and adapt such precautions as may be advisable for the protection of personnel and property in the handling and use of any of our products.