

PRODUCT DESCRIPTION

Fasto A418 is a single component, medium strength, anaerobic gasket compound. A418 is a very high viscosity thixotropic product. A418 cures slightly slower on steel surfaces and develops medium strength. A418 will give an almost instant low pressure seal (Up to 0.5 Bar after 20mins.) to allow on-line pressure testing.

A418 cures when confined in the absence of air between close fitting flat metal surfaces.

TYPICAL APPLICATIONS

Fasto A418 is a 'form-in-place' gasket product designed for multipurpose applications on rigid metal flanges and surfaces like gearbox casings, machinery covers, pump housings, compressor end caps, turbine casings and many more industrial & automobile assemblies.

PROPERTIES OF UNCURED MATERIAL

	Value
Chemical type	Dimethacrylate
Appearance	Red
Specific Gravity	1.09
Viscosity cPs ¹	5,00,000
Viscosity cPs ²	1,10,000
Tensile Shear Strength ³ N/mm ²	9.8
Fixture Time (min.) ⁴	35
Full Cure (hours)	24
Max Gap Fill (mm)	0.5
Operating Temperature Range (°C)	-50 to +150 (continuous)

1 Brookfield RVT 'T' spindle E, 2.5rpm

2 Brookfield RVT 'T' spindle E, 20rpm

3 ASTM D 1002, on grit blasted mild steel

4 To achieve 0.2N/mm² in ASTM D1002, on grit blasted mild steel.

TYPICAL CURING PERFORMANCE

Typical Speed:

20 mins	5% strength
3 hours	~30% strength
24 hours	100% strength

Cure speed vs. Temperature

All figures relating to cure speed are tested at 21°C. Lower temperatures will result in slower cure. Heating the assembled part accelerates the curing process.

Activator Fasto AP49 should be used when the temperature is less than 5°C.

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 surfaces, the slower the cure speed. Maximum recommended gap for Fasto A418 is 0.5mm.

Cure speed vs. Substrate

Cure speed and strength vary according to the substrates. When used on mild steel components, Fasto A418 will reach full strength more rapidly than on more inert materials such as stainless steel and aluminium.

Anaerobic Adhesives only cure in the absence of air with metal part activation.

Fasto AP49 activator may be used to accelerate cure speed.

Cure speed vs. activator

Where speed of cure is too slow or the bond gap is very large, Fasto AP69 Anaerobic Activator may be used to accelerate cure speed. The use of an accelerator may reduce bond strength by up to 30%.

Fasto recommends testing on the parts to measure the effect.

TYPICAL ENVIRONMENTAL RESISTANCE

Hot strength

Fasto A418 is suitable for use at temperatures up to 150°C. At 130°C the bond strength will be ~25% of the strength of at 21°C.

Heat ageing

Fasto A418 retains over 90% full strength when heated to 100°C for 90 days then cooled and tested at 21°C.

Chemical / Solvent Resistance

Fasto A418 exhibit excellent chemical resistance to most oils and solvents including motor oil, leaded petrol, brake fluid, acetone, ethanol, propanol and water. Anaerobic adhesives and sealants are not recommended for use in pure oxygen and chlorine lines.

DIRECTIONS FOR USE

Ensure parts are clean, dry and free from grease or oil.

Apply adhesive to all the engaged area. Assemble parts and allow curing.

Wipe excess adhesive from outside of joint.

If temperature is less than 5°C, Fasto AP69 activator should be used.

Product is normally hand applied from the bottle or tube. Dispensing systems are available for high volume assembly applications.

Please contact your Fasto representative for further advice on dispensing solutions.

GENERAL INFORMATION

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

Storage

Optimal storage conditions are between 8°C and 21°C. Storage outside this temperature range can adversely affect product properties and may affect the stated shelf life.

Packaging

Tubes: 50 ml & 250 ml
Available in bulk for use with dispensing systems.

Please Note: When packed an air space above product is vital to maintain stability.

LIMITATIONS

Fasto A418 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. Fasto AP49 Activator may be required on plated parts.

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. Fasto India 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.