

PRODUCT DESCRIPTION

Fasto A143 is a general purpose, medium-high strength, thixotropic anaerobic threadlocker. Fasto A143 is formulated to lock all metric and imperial nuts and bolts, preventing vibration loosening and leakage through the threads. A143 is oil tolerant, so it will bond 'as received' parts, but best results are obtained with clean substrates. The thixotropic nature of the product prevents run off, dripping and migration after assembly.

The product cures when confined in the absence of air on close-fitting metal surfaces.

TYPICAL APPLICATIONS

Fasto A143 is suitable for most medium and coarse threaded screws, nuts and bolts. Fasto A143 is typically used on mounting bolts, housing screws, cap screw of industrial static & dynamic machines. Fasto A143 can also be used for threadlocking applications of automobile assemblies.

A143 prevents corrosion of assembled parts.

PROPERTIES OF UNCURED MATERIAL

	Value
Chemical type	Dimethacrylate
Appearance	Blue
Specific Gravity	1.04
Viscosity cPs ¹	14,000
Viscosity cPs ²	3,300
Breakaway Torque ³ Nm	19
Prevail Torque ³ Nm	10
Fixture Time (min.) ⁴	15
Full cure (hours)	24
Max Gap Fill (mm)	0.30
Operating Temperature Range (°C)	-50 to +150 (Continuous)

1 Brookfield RVT – Spindle 3, 2.5rpm

2 Brookfield RVT – Spindle 3, 20rpm

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

4 ISO 10964

TYPICAL CURING PERFORMANCE

Typical Speed:

15 mins	~6% strength
1 hours	~60% 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 A143 is 0.30mm.

Cure speed vs. Substrate

Cure speed and strength vary according to the substrates. When used on mild steel components, Fasto A143 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 AP49 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 A143 is suitable for use at temperatures up to 150°C. At 130°C the bond strength will be ~30% of the strength of at 21°C.

Heat ageing

Fasto A143 retains over ~90% full strength when heated to 100°C for 90 days then cooled and tested at 21°C.

Chemical / Solvent Resistance

Fasto A143 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 and dry and free from grease or oil. Apply adhesive to all the engaged threads. Assemble parts and allow curing. Wipe excess adhesive from outside of joint. Product is normally hand applied from the bottle.

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

Store in a cool area and out of direct sunlight. Refrigeration to 5° C gives optimum storage stability.

Packaging

Bottles: 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 A143 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.

Trails are recommended to establish whether cleaning of the parts is necessary.

Fasto AP49 Activator may be required on planted 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.