

TA-70

HIGH STRENGTH, MEDIUM VISCOSITY THREADLOCKING ANAEROBIC ADHESIVE

TECHNICAL DATA SHEET

AUGUST 2021



PRODUCT DESCRIPTION

Bostik Born2Bond™ Threadlocking anaerobic adhesives provide single-component, one-stop solutions for all threadlocking requirements, including preventive maintenance. Eliminating the cost and inconvenience of holding extensive inventory, these liquid adhesives fill and seal all voids to achieve a cohesive connection of metal parts that remains fixed even when subjected to extreme vibrations, temperatures or chemical substances.

TA-70 is a general purpose high strength anaerobic adhesive designed to lock and seal threaded fasteners which require permanent assembly. Once cured the product prevents leakage and/or loosening of parts from vibration and shock.

This product is acceptable as a thread locking compound in and around food processing areas according to NSF S6 (Registration No.163872).

For more information, please consult <https://born2bond.bostik.com>

KEY FEATURES

- High strength
- Medium viscosity
- 100% connection - no loosening
- Recommended for threads up to M20
- Evenly distribute force
- Vibration resistant
- Corrosion prevention
- Single component
- Suitable for active and passive metals

DIRECTIONS FOR USE

1. For best results, clean all surfaces (internal and external) with Born2Bond™ Pre-Bonding Cleaner and wait until fully evaporated.
2. If the cure speed is too slow, use Born2Bond™ Anaerobic Activator.
3. Shake the product before use.
4. Apply adhesive onto threads.
5. Assemble and tighten as required.

METHOD OF USE

Manual: Directly from the bottle with or without dispensing cannula for more precise dispensing.

Semi-Automated: Use of pressure-time systems for accurate volume and larger series.

Full-Automated: fully automated robot or application lines.

APPLICATIONS

- Mechanical parts assembly
- Machine engineering
- Gear manufacturing
- Engines and powertrains

STORAGE/SHELF LIFE

Store product in the unopened container in a dry area out of direct sunlight. Storage below 7°C or greater than 28°C can adversely affect product performance. If stored properly, this product has a shelf life of 24 months.

HEALTH/SAFETY

The Safety Data Sheet is available on the Bostik website and should be consulted for proper handling, cleanup and spill containment before use. Keep containers covered to minimize contamination.

LIMITATIONS

This product is not recommended for use in pure oxygen and/or oxygen-rich systems and should not be selected as a sealant for chlorine or other strong oxidizing materials. Material removed from containers may be contaminated during use. Do not return product to the original container. Bostik will not assume responsibility for product that has been contaminated or stored under conditions other than those previously indicated. If additional information is required, please contact your local Technical Service Center or customer service representative.

PRODUCT CHARACTERISTICS

Basis Technology	Acrylic
Components	1K
Appearance / Color	Green (Fluorescent)
Cure	Anaerobic
Temperature use Range	-55°C to 180°C

UNCURED PHYSICAL PROPERTIES

Viscosity (Brookfield: Sp2 @20rpm @25°C)	400 – 600 mPa.s
Specific Gravity ASTM D1475 - 13(2020)	1.06

CURING PROPERTIES

The table below shows the curing properties of the product on mild steel according to ISO 10964

Fixture time @ 20°C	<10min
Fixture time with Activator* @ 20°C	<5min
Full Cure @20°C	12h

*Bostik Born2Bond Anaerobic Activator

BONDING PERFORMANCE

The performance data reported below were measured according to ISO 10964. Product was applied on M10 mild steel bolts and cured for one week at 22°C (71.6°F) before testing. Oil-tolerance is measured on slightly oiled substrates (mild steel) and cured for 24h.

Breakaway torque mild steel unseated	33Nm
Prevailing torque mild steel	33Nm
Breakaway torque mild steel pre-torqued	39Nm
Prevailing torque mild steel pre-torqued	25Nm
Oil tolerance (Strength)	22Nm

HOT STRENGTH

The data below shows the adhesive performance on M10 mild steel bolts at various temperatures. The adhesive was cured for one week at 22°C. The breakaway strength was tested according to ISO 10964. The strength test was performed after the specimen were heated for 30 minutes at the indicated temperatures.

Remaining strength @ 150°C	50%
Remaining strength @ 180°C	27%

CONVERSIONS

$$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$$

$$\text{kV/mm} \times 25.4 = \text{V/mil}$$

$$\text{mm} / 25.4 = \text{in}$$

$$\mu\text{m} / 25.4 = \text{mil}$$

$$\text{N} \times 0.225 = \text{lb}$$

$$\text{N/mm} \times 5.71 = \text{lb/in}$$

$$\text{N/mm}^2 \times 145 = \text{psi}$$

$$\text{MPa} \times 145 = \text{psi}$$

$$\text{N}\cdot\text{m} \times 8.851 = \text{lb}\cdot\text{in}$$

$$\text{N}\cdot\text{mm} \times 0.142 = \text{oz}\cdot\text{in}$$

$$\text{mPa}\cdot\text{s} = \text{cP}$$

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