

TYPE: PB7

THREADLOCKING

DESCRIPTION

PB7 is a high strength, anaerobic thread locking compound. PB7 is designed for the permanent locking of threaded fasteners. The product performs on aluminum, steel, plated fasteners, stainless steel, and special alloy parts. PB7 exhibits good temperature stability and is solvent resistant.

TYPICAL APPLICATIONS

PB7 will lock and seal large fasteners. PB7 is used in applications where shock and vibration may cause the fastener to loosen.

Permanently locks nuts and bolts up to 1" in diameter.

PROPERTIES

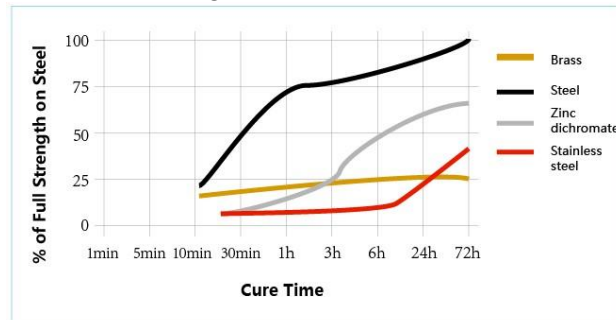
Item	Data
Chemical Type	Anaerobic
Appearance	Red
Toxicity	Low
Solids	100%
Viscosity @ 25°C	500
Specific Gravity (g/ml)	1.10
Max Fill Gap (mm)	0.13
Break torque/Prevail torque (N/m)	32.5/30
PERFORMANCE OF CURED MATERIAL	Fixture Time 10-30min@ 72°F(22°C)

	Full Cure Time	24 hrs @ 72°F(22°C)
	Temperature Range	-65°F to 300°F(-54°C to 150°C)
Breakaway Strength	3/8" Plain Steel nut and bolt@24 hr	140-300 lbf-in
	3/8" Zinc plate nut and bolt@ 24 hr	200-350 lbf-in

TYPICAL CURING PERFORMANCE

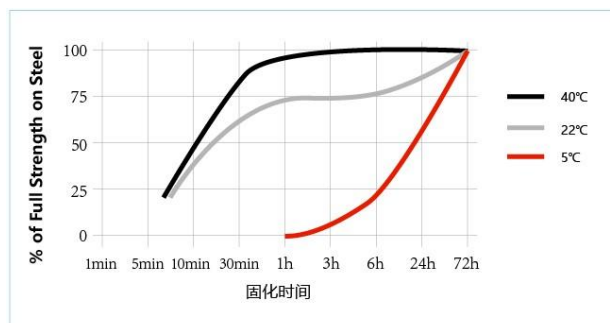
Cure speed vs. substrate

The rate of cure will depend on the material used. PB7 will react faster and stronger with Active Metals. However, Inactive Metals will require the use of an activator (Surface Prep) to obtain maximum strength and cure speed at room temperature.



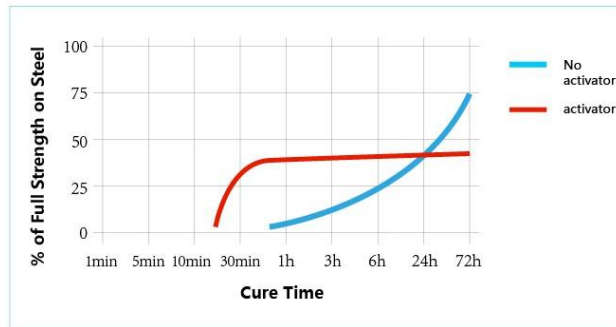
Cure Speed vs. Temperature

The rate of cure will depend on the temperature. The graph below shows the breakaway strength developed with time at different temperatures on M10 steel nuts and bolts and tested according to ISO 10964.



Cure Speed vs. Activator

Where cure speed is unacceptably long, or large gaps are present, applying activator to the surface will improve cure speed.



ENVIRONMENTAL AND FLUID RESISTANCE

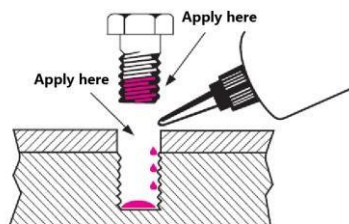
Shear strength values after 1,000 hours

Item	Typical Values
Heat age@ 150°C	100%
Engine oil@ 150°C	80%
Brake fluid@ 150°C	100%
ATF@ 150°C	100%
50/50 water/ ethylene glycol@ 120°C	85%
Water@ 100°C	85%
Gasoline@ 25°C	100%
Diesel fuel@ 25°C	100%
Ethyl Alcohol@ 25°C	95%

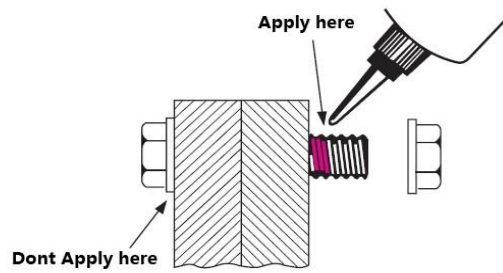
DIRECTIONS FOR USE

For Assembly

1. Clean all threads (Bolt and Hole) with a cleaning solvent
2. Shake the product thoroughly before use.
3. To prevent the product from clogging in the nozzle, do not allow the tip to touch metal surfaces during application.
4. For Thru Holes, apply several drops of product to the bolt at the nut engagement area.



5. For Blind Holes, apply several drops down female threads into the bottom of the hole. As threads are engaged, compressed air forces the product upwards into the threads.



6. Assemble and tighten as usual. When tightening to established torque values, torque compensation is not required.

For Disassembly

1. Remove with standard hand tools.
 2. In rare instances where hand tools do not work because of excessive engagement length, apply localized heat to nut or bolt to approximately 250 ° C.
- Disassemble while hot.

For Clean up

Cured product can be removed with a combination of soaking in a Loctite solvent and mechanical abrasion such as a wire brush.

Health & Safety in Use

IRRITANT: Contains Methacrylate Esters which may irritate eyes, respiratory organs and skin. In case of contact with the skin, wash immediately with plenty of water.

Compatible Primers

Fixture times can improve by as much as 50%. The use of primers can result in lower strength and performance should be tested after full cure.

Storage

Product should be stored in a cool and dry location at temperatures between 14° F (-10° C) to 86° F (30° C). Shelf life is 2 years from date of manufacture when stored at 72± 8° F (22± 4° C).

Presentation

Bottles: 20ml

Caution

PB7 is recommended for threaded components under 1" in diameter. It is color coded red and once cured, seals and vibration proof the assembly giving controlled breakaway and prevailing torques. **Product conforms to MIL-S46163A, ASTM D-5363, NSF.**

Note

The information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. The product can have a variety of different applications as well as differing application and working conditions in your environment that are beyond our control. Prime-Bond is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product. Any liability in respect of the information in the Technical Data Sheet or any other written or oral recommendation regarding the concerned product is excluded, except if otherwise explicitly agreed and except in relation to death or personal injury caused by our negligence and any liability under any applicable mandatory product liability law.

For complete safety and handling information, please refer to the appropriate Material Safety Data Sheets prior to using this product.