

# Cyberbond

**Titan 7680**

TECHNICAL DATA SHEET



Titan 7680 is a single component anaerobic retaining adhesive, which develops high strength in bonding cylindrical parts: it can be applied to retain pulleys, gears, rotors and shafts; as well as to secure bushings, bearings and housing plugs. It will augment shrink and press fit assemblies in demanding vibrational and high-friction applications. Titan 7680 is certified to ANSI/NSF 61 Section 6: Drinking Water System Components.

## Physical Properties - Monomer (Uncured)

Base Compound	Methacrylate Ester
Appearance	Green Liquid
<b>Viscosity</b>	1,250 +/- 300 cPs (Brookfield Spindle 3 @ 20 rpm, RVT, 25°C)
<b>Gap Fill</b>	.015"
Specific Gravity	1.1
Flash Point	>200°F / 93°C
Shelf Life	12 months unopened
Storage Condition	20°C / 68°F
RoHS-Compliant	yes

## Physical Properties - Polymer (Cured)

Appearance	Green Solid
<b>Locking Strength</b>	<b>High</b>
Service Temp Range	-65 to 300 °F ( -54 to 149 °C)
Full Cure Time	24 hours
Pin/Collar Strength	3500 psi 24.13 N/mm2

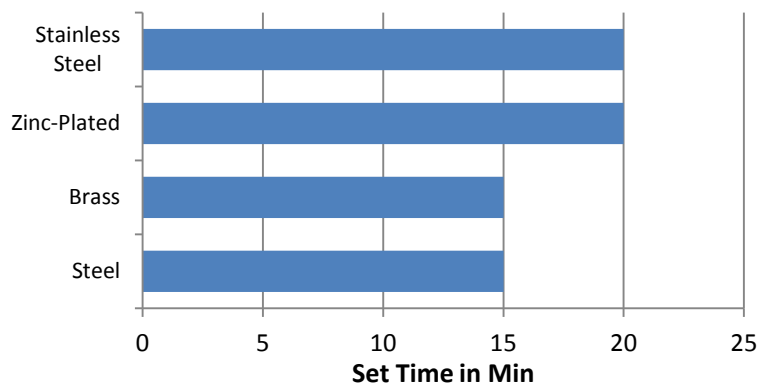
## Performance of Cured Adhesive

	inch-pounds	Newton meters
<b>Breakaway Torque</b>	150.0 to 300.0	16.95 to 33.90
<b>Prevailing Torque</b>	250.0 to no limit	28.25 to no limit

## Setting Time / Full Cure Time\*

	minutes	hours
Steel	15	24 hrs
Brass	15	24 hrs
Zinc-Plated	20	24 hrs
Stainless Steel	20	24 hrs

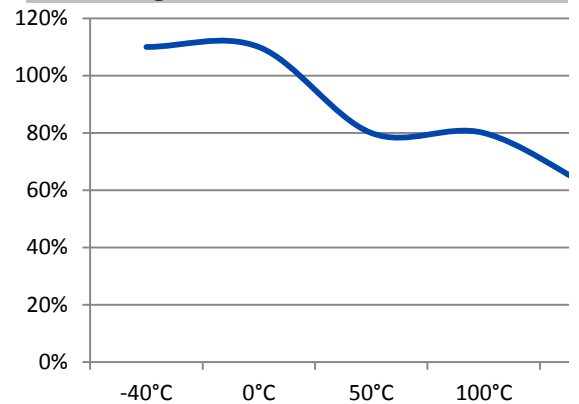
\*68°F / 20°C, 65% RH



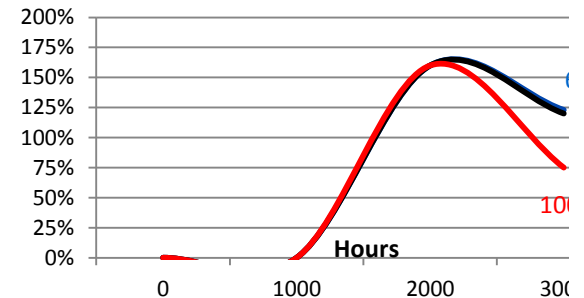
## Specifications and Approvals

Mil-R-46082B, Type III; ASTM D-5363 AN 0421

## Hot Strength (%RT strength, tested at temperature)



## Heat Aging (aged at temp indicated and tested @ 22°C)



## Solvent Resistance

Solvent	Example	Res
Alcohol	Ethanol, Methanol	+
Ester (aromatic)	Ethylacetate	-
Ketone (aromatic)	Acetone, Benzophenone	-
Aliphatic hydrocarbon (alkanes)	Petrol, Heptanes, Hexane	-
Aromatic hydrocarbons	Benzyl, Toluol, Xylol	-
Halogenated hydrocarbons	Methylenchloride, Chloroform, Chlorobenzol	-
Weak aqueous acid	Nitrite, muriatic acid, sulphuric acid, phosphoric acid	+++ conc
Weak aqueous base	sodium hydroxide solution, caustic potash	+++ conc

## General Instructions

Surfaces to be bonded should be clean and dry and free of grease. Product should be applied in enough quantity to fill all engaged threads. The product performs best in thin bond gaps. Very large gaps may create gaps that will affect the cure speed and overall strength. Good contact is essential. An adequate bond develops in 15 to 45 minutes and maximum strength is attained in 24 hours. This product is not recommended for use in pure oxygen environments and/or oxygen-rich systems and should not be selected as a sealant for chlorine or other strong oxidizing materials. This product is not designed for plastics, particularly thermoplastics where stress cracking of the plastic could result. It is recommended to confirm compatibility of the product with all substrates prior to use.

## Curing Performance

The gap of the bond line will affect set speed. Smaller gaps tend to increase set speed. Activators may be applied to further improve set speed, but may also impair overall adhesive performance.

## Storage

Products should be stored unopened in a cool, dry place out of direct sunlight. Products may be refrigerated for improved shelf life, but should be brought back to room temperature before use.



Updated

7/24/2012

## Note

The data contained herein are furnished for information only and are believed to be reliable. Cyberbond does not assume responsibility for the results obtained by others or over whose method Cyberbond does not control. It is the user's responsibility to determine suitability for the use or of any production methods mentioned herein and to adopt such precautions as may be advisable for the protection of property and of persons against any liability that may be involved in the handling and use thereof. In light of the foregoing, Cyberbond specifically disclaims any warranties of merchantability or fitness for a particular purpose arising from sale or use of Cyberbond products. Cyberbond specifically disclaims any liability for consequential or incidental damages of any kind, including loss of profits. The discussion herein of various products or compositions is not to be interpreted as representing that they are free from domination of patents owned by others or as a license under any Cyberbond patent. We recommend that each prospective user test the product prior to application to determine its suitability for the purpose intended prior to incorporating any product or applying its manufacturing process using the data as a guide.

**For safe handling information on this product, consult the Material Safety Data Sheet (MSDS)**

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