H.B. Fuller | Cyberbond CB

RM 88 Technical Datasheet

Profile: High strength, medium viscosity, high temperature resistance.
Anaerobic curing retainer for dynamic loaded parts like gearings etc.

Physical properties - monomer

Base compound	Dimethacrylate
Appearance	Green
Gap filling capacity	0,05 - 0,15 mm
Fluorescent	No
Density at 20 °C	1,06 g/cm³
Shelf life at 20 °C in unopend bottles	12 months
Maximum thread	M 20

Viscosity

Cone / Plate,measured at 20 °C	
@ 160 s-1	400 - 800 mPas

Physical properties - Polymer

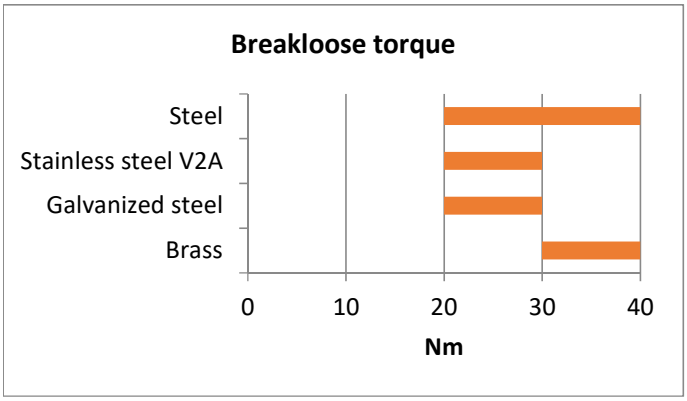
Full cure time [hours]	24
Appearance	Green
Temperature range	-50 - 180 °C
Compressive Shear Strength on steel pins / collars	24 - 44 N/mm²

Setting time in seconds

M10 brass bolt/nut	10 - 30

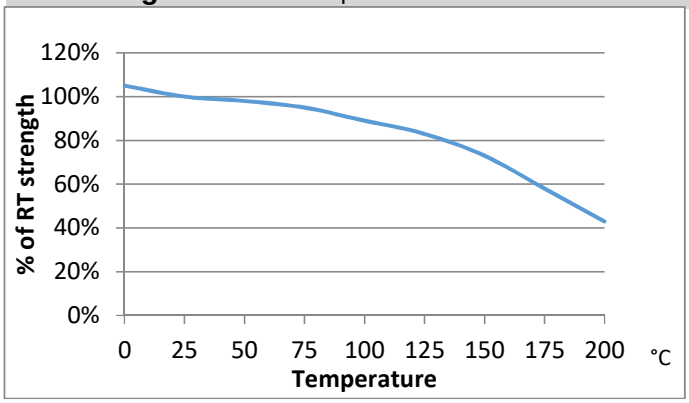
Adhesive strength

Substrate	Nm		
Steel	20	to	40
Stainless steel V2A	20	to	30
Galvanized steel	20	to	30
Brass	30	to	40

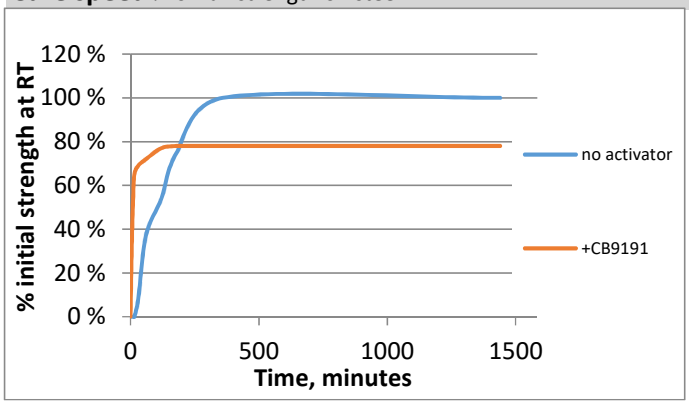


Breakloose torque on M10 bolts and nuts in Nm according to DIN 54454, free swimming without on-torque.

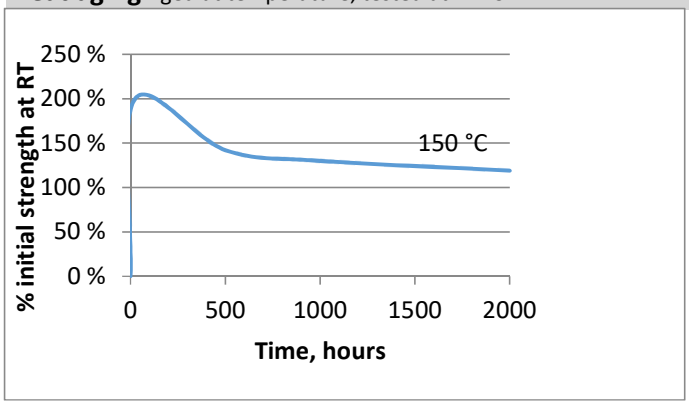
Hot strength Tested at temperature



Cure speed % of full strength on steel



Heat aging Aged at temperature, tested at 22 °C



Shear strength

Steel pin/collar specimen, after 24 h	24 - 44 N/mm²

Solvent resistance

Solvent	Example	Resistance
alcohols	ethanol, methanol, isopropyl alcohol	+
esters	ethylacetate, benzoic benzyl ester	+
other liquids	water, freon, diesel oil	+
other liquids	ammonium hydroxide, bromine, hydrobromic acid, lithium hydroxid, perchloric acid, potassium hydroxide	-
gases	acetylene, argon, butane, ethane, nitrogen	+
gases	ammonia, freon gas, oxygen (pure and /or oxygen rich systems), chlorine	-

General Information about Anaerobic Adhesives

Anaerobic adhesives and sealants cure by means of metal contact and/or due to the absence of air. Due to these facts they are only suitable for bonding and sealing metals. Therefore, as such they are not traditional adhesives as commonly known, but are specifically good for the bonding of metal cylindrical parts where torsion-load and shearing-load play an important part. Furthermore, anaerobics are excellent sealants for threads and flanges. Anaerobis are solvent free, one component adhesives.
There are active metals (construction steel, tool steel, free cutting steel, brass, copper) and inactive metals (high alloyed or stainless steel, aluminium, electroplated surfaces, cast iron). While products used on active metals cure very fast, the same products need longer times to cure when used on inactive metals. But this does not influence the intended strength.

Measurement of Viscosity

Viscosity describes the flow-ability of a liquid. Cyberbond measures the viscosity of the products by means of the cone/plate method: the liquid is applied on a panel and a defined cone presses the liquid together and rotates.
You differentiate between a Newtonian and a thixotropic liquid. In terms of a Newtonian liquid you will get a relative constant viscosity graph in dependence of the rotary speed of the cone. In terms of thixotropic liquids the product becomes more liquid (down to its base viscosity) the faster the cone rotates.
The viscosity is measured in mPa*s.

Clean Surface

The surface condition of the mating parts has an enormous influence on the success of a bond. To achieve good bonding success the mating parts should be clean. A certain amount of e.g. oil can be tolerated.

Additional Programme

In order to support certain applications Cyberbond offers perfectly balanced additional products such as:
- Activator: in order to accelerate the curing of adhesives (Standard: CB 9191)
- Cleaner: in order to clean surfaces professionally (Standard: CB 9999)

LINOP Equipment

Cyberbond offers by means of the LINOP Equipment range suitable dosing and LED based curing devices. We also refer to suitable dosing tips which help an economical use of the adhesives (also if used manually).

Storage

Store products in a cold and dark place. Optimal storage temperature range is between 8 °C - 21 °C.

Safety Information for Anaerobic Adhesives

Please consult the MSDS (Material Safety Data Sheet) before using. Keep the workplace clean and use in well ventilated areas only. Install suitable exhaust system at the workplace. Wear suitable safety glasses and gloves.

The data mentioned in this TDS, particularly the recommendations and use of products are based on our recent knowledge and experience. Due to the fact of having so many different materials involved and conditions of applications which are out of our influence, we strongly recommend to do sufficient tests in order to guarantee that Cyberbond products are suitable for the intended process and applications. Except for wilful acts any liability based on such recommendations or any verbal advice is hereby expressly excluded.

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

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