Technical data sheet



Product: 2011

Manufacturer: H.B. FULLER

Product group: **KLEBSTOFF**

Article group: **CYANACRYLAT**

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CYBERBOND 2011

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Cyberbond 2011

General Properties	Technology/Base	Ethyl-2-cyanoacrylate
	Type of Product	Adhesive
	Curing	Moisture curing
	Mechanical Properties	Semi-structural
	Colour	Transparent
	Product Series	Elastomer and Plastic Series
	Product Benefits	Fast bonding

Typical Technical Data

General

Physical Properties		
Density	1.05 g/cm ³	
Flash Point	82.5 °C	
Processing Guidelines and Parameters		
Shelf Life	12 months	unopened, < 20 °C
Viscosity	65 mPa·s to 200 mPa·s	158 1/s, cone-plate, 20 °C
Setting Time	20 s to 50 s	steel
Setting Time	2 s to 4 s	EPDM
Setting Time	2 s to 4 s	acrylonitrile butadiene styrene (ABS)
Service Conditions		
Service Temperature	-55 °C to 95 °C	
Solvent Resistance		
Alcohol	+++	e.g. Ethanol, Methanol, Isopropanol
Aliphatic hydrocarbons (alkanes)	++-	e.g. Petrol, Heptanes, Hexane
Aromatic hydrocarbons	++-	e.g. Benzyl, Toluol, Xylol
Ester (aliphatic)		e.g. Ethylacetate
Halogenated hydrocarbons		e.g. Methylenchloride, Chloroform, Chlorobenzol
Ketone		e.g. Acetone, Benzophenone
Weak aqueous acid	+++	e.g. diluted nitrite, muriatic acid, sulphuric acid, phosphoric acid
Concentrated Acid		e.g. nitric acid, muriatic acid, sulfic acid, phosphoric acid
Weak aqueous base	+++	e.g. diluted sodium hydroxide solution, caustic potash solution
Concentrated Base		e.g. sodium hydroxide solution, caustic potash solution
Water	++-	

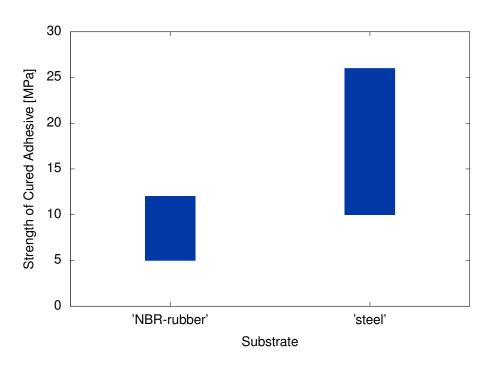


Figure 1: Strength of Cured Adhesive

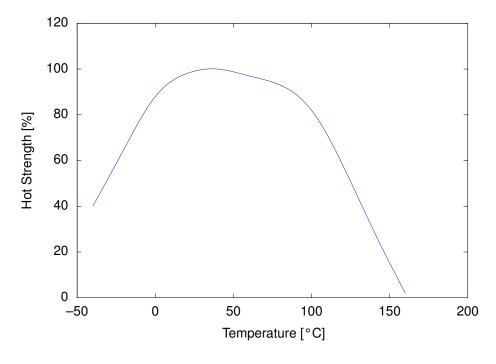


Figure 2: Hot Strength (%RT strength, tested at temperature)

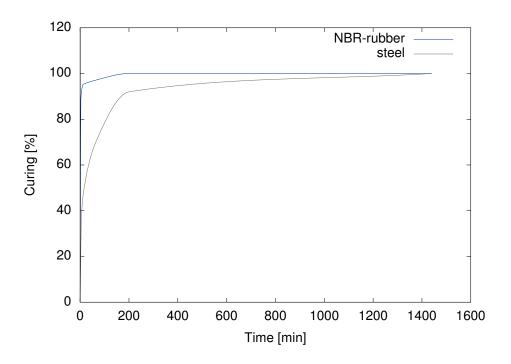


Figure 3: Time Until Full Cure

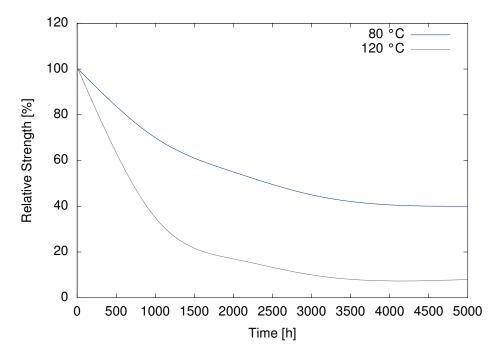


Figure 4: Heat Ageing on Steel (aged at temp. indicated and tested @ 20°C)

100

80

60

40

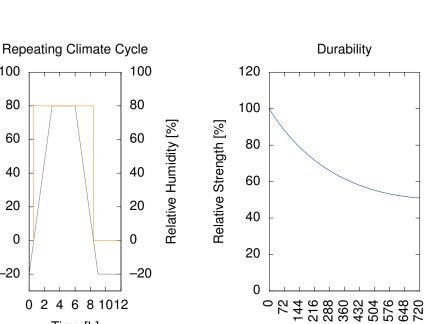
20

0

Time [h]

-20

Temperature [°C]



Time [h]

Figure 5: Durability after Alternating Climate Storage





Product Properties

Applications	Fields of Application	Assembly and repair
	· ·	Electronics
		Automotive
		Construction
		Industrial assembly
		Transportation
Processing	Suitable Substrates	Various galvanized steels
		Various aluminium alloys
		Various steel alloys
		Various plastic substrates
		EPDM
		Various elastomeric materials
		Various other substrates
	Consistency	Medium viscosity
		Liquid
	Surface Requirements	Dry
		Clean
		Free of grease
	Surface Cleaning	Cyberbond 9999 Cleaner Spray
		Cyberbond 9999 Liquid Cleaner
	Suitable Primer	Cyberbond 9056
		Cyberbond Conditioner Pen
	Activator	Cyberbond 9090
		Cyberbond 9096
	D-Bonder	Cyberbond 9060
		Cyberbond 9065
		Cyberbond 9066
Certifications	Certifications and Declarations of	ISO 10993-5: Tests for in vitro cytotoxicity
	Conformity	ISO 10993-10: Tests for skin sensitization
		ISO 10993-11: Tests for systemic toxicity



Additional Information

Technical User Information

Cyanoacrylates are fast setting, one component and solvent free adhesives. Polymerization is initiated by present humidity. Best results are given between 40 to 70 % relative humidity and 20 to 24 °C ambient temper-

Cyberbond standard grades are as follows:

- Powerdrop® series (stabilised ethyl ester): For hobby and DIY applications.
- · Elastomer and plastic series (ethyl ester): Fast setting industrial cyanoacrylates.
- Neomer Series (surface insensitive ethyl ester): Cyanoacrylates for wood, leather etc.
- xtraflex series (rubber toughened ethyl ester): Partly flexible, heat and impact resistant.
- · Metal series (ethyl ester): High performance on metal to rubber or metal to plastic.
- Low odor series (methoxy ester): Low odour and low blooming characteristics.
- Medical series (butyl- and octyl ester): Skin bonding in medical industrie.
- Frame Fast® series:

For fast bonding of screens (plastics, stainless steel) on frames (aluminium, stainless steel, wood).

Storage

Cyberbond 2011 should be used within the shelf life specified on the packaging. The storage stability applies to material stored under appropriate conditions

only (original unopened containers, recommended storage temperature). This Product should be stored unopened in a cool, dry place out of direct sunlight. Refer to the Technical Data section of this document for optimum storage temperatures.

Safety

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

Processing

Surfaces should be clean and free from grease. Dispense adhesive to one surface only. Apply only enough to leave a thin film layer after compression. Press parts together and hold firmly until adhesive has fixtured. Maximum strength is attained typically in 24 hours. Product should be allowed to develop full strength before subjecting to any service loads.

Disposal

Please refer to the Safety Data Sheet (SDS) for disposal instructions.

Additional Programme

To support certain applications Cyberbond offers a range of additional products. Refer to the to the product properties section of this document for suitable Activators and Cleaners.

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).

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