Technical Data Sheet

FLASH FLETCH GLUE

15/06.2020

PRODUCT DESCRIPTION

FLASH FLETCH GLUE provides the following product characteristics:

Technology	Cyanoacrylate
Chemical Type	Ethyl cyanoacrylate
Appearance (uncured)	Transparent, colorless to straw colored liquid[LMS]
Components	One part - requires no mixing
Viscosity	Low
Cure	Humidity
Application	Bonding
Key Substrates	Metals , Plastics and Elastomers

This Technical Data Sheet is valid for FLASH FLETCH GLUE manufactured from the dates outlined in the "Manufacturing Date Reference" section.

FLASH FLETCH GLUE is designed for the assembly of difficult-to-bond materials which require uniform stress distribution and strong tension and/or shear strength. The product provides rapid bonding of a wide range of materials, including metals, plastics and elastomers. FLASH FLETCH GLUE is also suited for bonding porous materials such as wood, paper, leather and fabric.

NSF International
Registered to NSF Category P1 for use as a sealant where there is no possibilty of food contact in and around food processing areas. **Note:** This is a regional approval. Please contact your local Technical Service Center for more information and clarification.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Specific Gravity @ 25 °C	1.1
Flash Point - See SDS	
Viscosity, Cone & Plate, mPa·s (cP):	
Temperature: 25 °C, Shear Rate: 3,000 s^{-1}	70 to 110[LMS]
Viscosity, Brookfield - LVF,25°C,mPa·s (cP):	
Spindle 1, speed 30 rpm	100 to 120

TYPICAL CURING PERFORMANCE

Under normal conditions, the atmospheric moisture initiates the curing process. Although full functional strength is developed in a relatively short time, curing continues for at least 24 hours before full chemical/solvent resistance is developed.

Cure Speed vs. Substrate

The rate of cure will depend on the substrate used. The table below shows the fixture time achieved on different materials at 22 °C / 50 % relative humidity. This is defined as the time to develop a shear strength of 0.1 N/mm² .

Fixture Time, seconds:	
Steel	<5
Aluminum	<5
Neoprene	<5
Rubber, nitrile	<5
ABS	<5
PVC	<5
Polycarbonate	5 to 10
Phenolic	<5
Wood (balsa)	<5
Wood (oak)	15 to 30
Wood (pine)	15 to 20
Chipboard	<5
Fabric	10 to 20
Leather	15 to 30
Paper	<5

Cure Speed vs. Bond Gap

The rate of cure will depend on the bondline gap. Thin bond lines result in high cure speeds, increasing the bond gap will decrease the rate of cure.

Cure Speed vs. Humidity

The rate of cure will depend on the ambient relative humidity. Higher relative humidity levels result in more rapid speed of cure.

Cure Speed vs. Activator

Where cure speed is unacceptably long due to large gaps, applying activator to the surface will improve cure speed. However, this can reduce ultimate strength of the bond and therefore testing is recommended to confirm effect.

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TYPICAL PERFORMANCE OF CURED MATERIAL

Adhesive Properties

Cured for 10 seconds @ 22 °C
Tensile Strength, ISO 6922:

Buna-N	N/mm²	≥6.9[LMS]
	(psi)	(≥1,000)

Cured for 72 hours @ 22 °C
Tensile Strength, ISO 6922:

Buna-N	N/mm²	13.7
	(psi)	(1,900)

Lap Shear Strength, ISO 4587:

Steel (grit blasted)	N/mm²	20
	(psi)	(2,900)
Aluminum (etched)	N/mm²	12.4
	(psi)	(1,800)
Zinc dichromate	N/mm²	2.5
	(psi)	(360)
ABS	* N/mm²	7.5
	* (psi)	(1,090)
PVC	* N/mm²	10
	* (psi)	(1,450)
Phenolic	* N/mm²	12.6
	* (psi)	(1,820)
Polycarbonate	* N/mm²	9.6
	* (psi)	(1,400)
Nitrile	* N/mm²	1.2
	* (psi)	(170)
Neoprene	* N/mm²	1.1
	* (psi)	(160)

Block Shear Strength, ISO 13445:

Polycarbonate	N/mm²	11
	(psi)	(1,600)
ABS	* N/mm²	23
	* (psi)	(3,340)
PVC	N/mm²	2.6
	(psi)	(380)
Phenolic	* N/mm²	21.3
	* (psi)	(3,090)

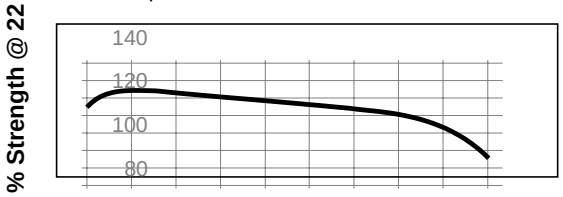
* substrate failure

TYPICAL ENVIRONMENTAL RESISTANCE

Cured for 1 week @ 22 °C
Lap Shear Strength, ISO 4587:
Steel (grit blasted)

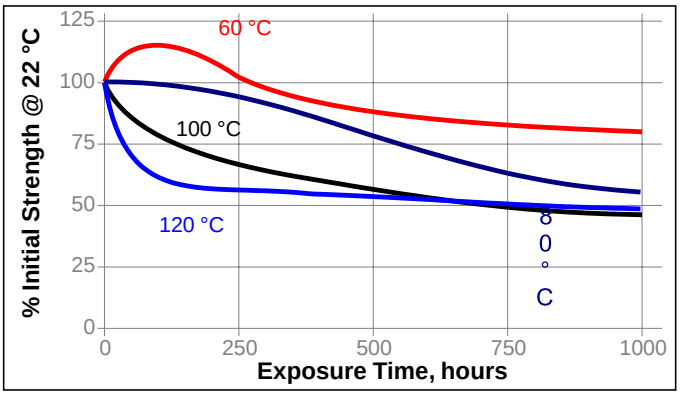
Hot Strength

Tested at temperature



Heat Aging

Aged at temperature indicated and tested @ 22 °C



Chemical/Solvent Resistance

Aged under conditions indicated and tested @ 22 °C

		% of initial strength		
Environment	**°C**	**100 h**	**500 h**	**1000 h**
Motor oil	40	115	85	85
Unleaded gasoline	22	85	90	95
Water	22	75	80	75
Water/glycol	22	85	75	65
Ethanol	22	100	110	130
Isopropanol	22	115	100	120
98% RH	40	80	65	65

Chemical/Solvent Resistance

Aged under conditions indicated and tested @ 22°C.
Lap Shear Strength, ISO 4587, Polycarbonate

		% of initial strength		
Environment	**°C**	**100 h**	**500 h**	**1000 h**
Air	22	110	120	115
98% RH	40	110	120	105

GENERAL INFORMATION

This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected asa sealant for chlorine or other strong oxidizing materials.

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

Directions for use:

1. Bond areas should be clean and free from grease.
2. Flash Fletch Glue Activator may be used if necessary. Apply it to one bond surface.Allow the Activator to

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dry.

3. Apply adhesive to one of the bond surfaces (do not apply the adhesive to the activated surface). Assemble the parts within a few seconds. The parts should be accurately located, as the short fixture time leaves little opportunity for adjustment.
4. Bonds should be held fixed or clamped until adhesive has fixtured.
5. Product should be allowed to develop full strength before subjecting to any service loads (typically 24 to 72 hours after assembly, depending on bond gap, materials and ambient conditions).

Storage
Store product in the unopened container in a dry location. Storage information may be indicated on the product container labeling.
Optimal Storage: 2 °C to 8 °C. Storage below 2 °C or greater than 8 °C can adversely affect product properties. Material removed from containers may be contaminated duringuse. Do not return product to the original container. Dissegna cannot assume responsibility for product which 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.

Conversions
(°C x 1.8) + 32 = °F
kV/mm x 25.4 = V/mil
mm / 25.4 = inches
µm / 25.4 = mil
N x 0.225 = lb
N/mm x 5.71 = lb/in
N/mm² x 145 = psi
MPa x 145 = psi
N·m x 8.851 = lb·in
N·m x 0.738 = lb·ft
N·mm x 0.142 = oz·in
mPa·s = cP

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. Dissegna is, therefore, not liable for the suitabilityof our product for the production processes and conditions in respect of which you use them, as well as the intended applications andresults. 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(s) 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.

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