B600 – Technical Data Sheet

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Description

B600 is a general industrial grade cyanoacrylate adhesive. It has been specially formulated to achieve the strongest possible bond between rough or irregular surfaces, on most metals, plastics or rubbers.

B600 is a one-component, solvent-free system and does not require the use of a catalyst, heat or clamps. When a thin layer of **B600** applied between two surfaces comes into contact with atmospheric moisture, a rapid polymerization occurs producing the ultimate bond.

Properties of Liquid State

Base	Ethyl Cyanoacrylate
Colour	Transparent, colourless to yellowish
Specific Gravity (25°C)	1.05
Refraction Index (n D20)	1.439
Flash Point (°C)	See MSDS
Shelf Life	12 months
Vapour pressure (hPA)	<1
Storage Life Below 5°C	12-16 months

Properties of Cured State

Coefficient of Thermal Expansion (K-1)	100 x 10-6
Coefficient of Thermal Conductivity (W/m.K)	0.10
Working Temperature (°C)	-55 °C - 80°C
Volume Resistivity (Ω.cm)	1 x 1016
Surface Resistivity (Ω)	1 x 1016
Dielectric Constant @ 10 kHz	2.30
Dielectric Dissipation Factor @ 10 kHz	<0.02
Dielectric Breakdown Strength (kV/mm)	25

Directions for Use

1. Make sure the surfaces to be bonded are clean and dry (preferable to solvent-wipe plastics, glass, and rubber, and to acid-treat metals).

2. Dispense a drop or drops to one surface only. Apply only enough to leave a thin film after compression.

3. Press parts together and hold firmly for a few seconds. Good contact is essential. An adequate bond develops in less than one minute. (Maximum strength is achieved in 24 to 48 hours).

4. Wipe off excess adhesive from the top of the container and recap B600 if left uncapped, may deteriorate by contamination from moisture in the air.

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5. Because B600 polymerises on contact with moisture surfaces, sometimes whitening will occur on the surface of the container or the bonded materials. Should this happen, wipe surfaces well with debonder.

Cure speed of B600 for various materials

Materials bonded	**Time to achieve adequate bond (s)**
Steel to Steel	20 – 50
Stainless Steel	30 – 90
Aluminum	10 – 30
Zinc plated	40 – 90
ABS to ABS	15 – 40
ABS to NBR	5 – 15
ABS to Wood	5 – 10
NBR to NBR	5 – 10
Polycarbonate	20 – 60

Bond strength of B600 for various materials

Tensile shear strength, cured for 24 hours at 20-25°C.

Materials bonded	**Tensile Shear Strength (kg/cm^2)**
Steel	190 – 210
Stainless Steel	250 – 450
Aluminum	170 – 190
Copper	150 – 170
PVC	40 – 60
ABS	50 – 70
Polycarbonate	80 – 120
Polystyrene	30 – 45
NBR	5 – 9
SBR	5 – 10

Handling and Storage

Storage: Keep products in the unopened container in a cool and dry location. Best when stored at two to 8ºC. Temperatures less than 2ºC can adversely affect product properties.

Do Not Freeze.

Keep container tightly closed until ready for use.

Handling: Material removed from containers may be contaminated during use. Do not pour back any product to the original container. Misuse of product will void all warranties.

Precaution

1. Use with proper ventilation. Avoid contact with skin and eyes.

2. If contact with skin occurs, rinse with warm water or dissolve gradually with appropriate de-bonder. Do not try to remove forcibly.

3. If adhesive gets into eye, keep eye open and rinse thoroughly. Seek medical attention immediately.

4. Keep well out of reach of children.

5. Keep adhesive in a cool, dry place 20-25°C. For long term storage, refrigeration (2°C) is recommended.

Please consult the B600 Health & Safety Data Sheet for statutory regulation information.

Information relating to the products of Bondrite Adhesive Limited is based on tests carried out under laboratory conditions. If any of our products are not used in accordance with our instructions or are used under conditions which vary from our laboratory, they may not perform in accordance with any information provided and Bondrite shall not have any liability in this case. Bondrite will accordingly provide samples of our products, on request and free of charge, for customers to carry out their own tests as to suitability of our product for their purposes and as used in their intended environment.