B400 – Technical Data Sheet

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Description

B400 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.

B400 is a one-component, solvent-free system and does not require the use of a catalyst, heat or clamps. When a thin layer of **B400** applied between two surfaces comes into contact with atmospheric moisture, a rapid polymerization occurs producing the ultimate bond.

Properties of Uncured Material

Base	Ethyl Cyanoacrylate
Colour	Transparent, colourless to yellowish coloured liquid
Specific Gravity (20°C)	1.05
Refraction Index (n 20D)	1.439
Flash Point (°C)	See MSDS
Shelf Life	12 months
Vapour Pressure (hPa)	<1
Viscosity (cP) @ 25°C	1000-1500

Properties of Cured Material

Coefficient of Thermal Expansion (K^{-1})	100×10^{-6}
Coefficient of Thermal Conductivity (W/m.K)	0.10
Working Temperature (°C)	-55 °C - 80°C
Volume Resistivity (Ω.cm)	1×10^{16}
Surface Resistivity (Ω)	1×10^{16}
Dielectric Constant (at 10kHz)	2.30
Dielectric Dissipation Factor @ 10kHz	<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 **B400** if left uncapped, may deteriorate by contamination from moisture in the air.

5. Because **B400** 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 de-bonder.

Cure speed of B400 for various materials

Materials bonded	**Time to achieve adequate bond (s)**
Steel to steel	20-50
Stainless steel	30-90
Aluminium	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

Note: The rate of cure depends on the bond gap. A smaller bond gap results in faster cure speeds.

Please consult the B400 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.

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