

# TECHNICAL DATA SHEET

## Black Toughened Cyanoacrylate Grades: B300, B1000 and B4000

**Product Description:** The advanced performance series of Cyanoacrylates are a family of products that have been designed and manufactured to meet the demands of today's product assembly requirements. These adhesives are used in applications that require exceptionally fast cure speeds, difficult to bond substrates, and acidic surfaces. Wood, PVC surfaces that contain plasticizers and certain types of EPDM, etc. This new generation of cyanoacrylates create exceptional bond strengths with excellent aging and weathering characteristics. This family of Cyanoacrylates combines excellent peel and impact resistance with high shear strength. They work best in applications where high stress, temperature, humidity, vibration and impact are present.

<b><u>Physical Properties:</u></b>	<b>B300</b>	<b>B1000</b>	<b>B4000</b>
(Uncured Properties)			
Base Compound	-----Modified Cyanoacrylate-----		
Appearance	<b>Black</b>	<b>Black</b>	<b>Black</b>
Viscosity @ 20°C	<b>300cps</b>	<b>1000cps</b>	<b>4000cps</b>
Flash Point (TCC)	-----200°F-----		
Specific Gravity	<b>1.1</b>	<b>1.1</b>	<b>1.1</b>
Soluble in	-----Nitromethane-----		

## **Cured Properties**

Melting Point	-----340° F-----		
Service Temp.	----- -65°F to 212°F -----		
Shear Strength	-----4000psi -----		
Fixture time	<b>45 sec</b>	<b>45 sec</b>	<b>45 sec</b>
Cure time	<b>24 hours</b>	<b>24 hours</b>	<b>24 hours</b>

## **Shear Strength**

Natural Rubber	-----Rubber failed -----		
Nylon/Nylon	<b>320psi</b>	<b>320psi</b>	<b>320psi</b>
Steel/Steel	<b>3200psi</b>	<b>3200psi</b>	<b>3200psi</b>
Aluminum/Aluminum	<b>2500psi</b>	<b>2500psi</b>	<b>2500psi</b>

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**Preparation:**

For best results and optimum adhesive performance, surfaces should be clean and free from contaminants. Contaminants can be removed by using suitable solvents. When using a cleaning solvent, first check for material compatibility particularly in the case of plastics. An easy method for removing contaminants is by using a clean cloth and wiping the surface with acetone or alcohol.

**Application:**

The advanced performance series of **Black Toughened** Cyanoacrylates should be applied in small amounts to one surface only. The parts should then be mated together under slight pressure. This causes the adhesive to spread out into a thin film and assures optimum adhesive performance. The pressure need only be applied for several seconds. This advanced performance series cures rapidly allowing for bonded parts to be handled within 10 to 60 seconds for most applications. Full cure is normally within 8 hours. In cases where Accelerator is used, fixturing will normally occur in less than 5 seconds with full cure in 2-4 hours.

**Shelf Life:**

All of the advanced performance series products have a minimum shelf life of six months when stored at 40°F. Shelf life at room temperature (72°F) is a minimum of three months. When stored in a refrigerator, allow the adhesive to gradually warm to room temperature prior to use. Avoid heat, direct sunlight and high moisture areas when storing. Avoid contaminating open containers

**Handling Precautions:**

All of the advanced series products are non-toxic and so do not constitute a health hazard. Normal precautions should be observed. Use in areas where there is adequate ventilation. **KEEP AWAY FROM CHILDREN.**

Accidental skin bonding may occur. Use warm, soapy water to separate skin or use Debonder. Gradually work skin free. Do not use excessive force to pull bonded area apart: this will only result in the tearing of skin and/or cause irritation which is unnecessary.

Should eye contact occur flush with water and see a physician. Do not force the bonded area apart. When the corneal surface and eyelid are bonded together treat with a suitable anti-irritant ointment and allow the eye to remain closed. Bond separation will occur naturally within 48 hours with no damage.