BDSI 4000 Surface Insensitive Cyanoacrylate Adhesive – Advanced Performance

1. DESCRIPTION:

BDSI 4000 is a surface insensitive cyanoacrylate adhesive used in applications that require faster cure speeds, on parts that are dry, and on parts that are acid base. The SI series bonds a wide range of similar and dissimilar surfaces. The SI Series provides excellent performance in a wide range of applications.

2. CHARACTERISTICS:

Color:	Clear
Viscosity:	3970 - 4030 CPS
Specific Color:	1.08
Base:	Modified Ethyl

3. Performance Properties:

Substrate	Fixture Time	Bond Strength
Steel	<18 seconds	>2,200 PSI
Aluminum	<15 seconds	>1,800 PSI
Neoprene	< 4 seconds	> 800 PSI
ABS	< 8 seconds	> 900 PSI
PVC	< 5 seconds	> 900 PSI
Lexan	< 25 seconds	> 900 PSI
Phenolic	< 10 seconds	> 900 PSI

Note: ISO4587 is the method used.

4. Electrical Properties:

Dielectric Constant ASTM D150 Dissipation Factor
1 kHz 2.0 to 3.50/< .02

Volume Resistivity ASTM D257: 2 to 10 x 10^{15}

5. Factors Affecting Cure Speed:

GAP: Thin bond lines result in faster cure speed. The larger bond gaps will lengthen cure speed.
HUMIDITY: Cyanoacrylates cure as a function of water content. Higher humidity will cure products faster. Fixture times are normally measured at 50% relative humidity (RH).

6. Chemical/Solvent Resistance:

Percent of Strength retained after aging for 500 hours:

Gasoline at 75F	100%
Isopropanol (IPA) at 75F	100%
Ethanol (Denatured Alcohol) at 75F	100%
Freon TA at 75F	100%
Motor Oil at 105F	100%
Lexan (polycarbonate) at 105F & 95% RH	100%

7. What Cyanoacrylates Bond:

ABS	NBR
Acrylic	Neoprene
Aluminum	Nitrile Rubber
Bakelite	Nylon
Brass	Phenolic
Chloroprene	Polycarbonate
Chrome	Polyester
Copper	Polystyrene
EPDM	Porcelain
Fiberglass	PVC
Latex	SBR
Leather	Skin
Natural Rubber	Steel
Wood	Valox

8. Directions for use and Storage:

For optimum results, parts should be clean and free from any oils, contamination or loose surfaces (rust). If parts do not mate flush or closely together, you will need to use a product that has higher viscosity to compensate for the gap. Any excess adhesive can be removed with Debonder. Store in unopened containers, out of the direct sunlight, in a dry location, at room temperature (75F). Refrigeration can extend shelf life.

9. ADDITIONAL INFORMATION

NOTE: Information contained herein is based on tests we believe to be reliable and accurate. It is offered in good faith for the benefit of the consumer. The Company shall not be liable for any injury, loss, or damage in the use or handling of its chemical products since conditions and use are beyond our control. In every case, we urge and recommend the user conduct tests to determine to their own satisfaction that the product is of acceptable quality and suitability for their particular purpose under their own operating conditions. Statements concerning possible use of our products are not intended as recommendations to use our products in the infringement of any patent, or for any particular purpose or application. These products are intended for industrial use only.