

Technical Data Sheet

PRODUCT SPECIFICATION

3500-RT

Cyanoacrylate Adhesive

Description:

This black, rubber toughened, high viscosity instant adhesive is specially formulated to offer exceptional resistance to peel and shock loads. Engineered specifically for bonding rubbers, metals and plastics, this single component, solvent free system requires no catalysts, heat or clamping. When applied as a thin film between two surfaces, exposure to atmospheric moisture triggers rapid polymerisation, producing a robust and highly resilient bond. This black, rubber toughened, high viscosity instant adhesive is specially formulated to offer exceptional resistance to peel and shock loads. Engineered specifically for bonding rubbers, metals and plastics, this single component, solvent free system requires no catalysts, heat or clamping. When applied as a thin film between two surfaces, exposure to atmospheric moisture triggers rapid polymerisation, producing a robust and highly resilient bond.

Typical Properties of Cured/Uncured Material:

Liquid State		Cured State	
Base	Ethyl Cyanoacrylate	Colour	Clear
Colour	Clear to Slightly Cloudy	Specific Gravity (20°C)	1.1~1.3
Specific Gravity (20°C)	1.05	Working Temp (°C)	-55°C - 125°C
Refraction Index (nD ₂₀)	1.439	Refractive Index (nD ₂₀)	1.490
Flash Point (°C)	>80°C	Dielectric Constant (at 10MHz)	3.5
Shelf Life	6 Months	Dielectric Loss (at 10MHz)	0.067
Boiling Point (°C)	>214°C	Soluble in Acetone, Dimethyl formamide, Nitromethane, Dimethyl sulfoxide	
Viscosity (cP) at 25 °C (Brookfield LV-52Z at 1rpm)	3500-6000		

Bond Strength:

(Tensile strength, cured for 24 hours at 20-25°C)

Substrate	kg/cm ²	Substrate	kg/cm ²
Steel to Steel	180-250	ABS to ABS	50-100
Stainless Steel to Stainless Steel	160-220	Polycarbonate to Polycarbonate	50-120
Aluminium to Aluminium	110-190	Polystyrene	30-110
Copper to Copper	120-170	NBR to NBR	5-9
PVC to PVC	40-80	SBR to SBR	5-9

Curing Performance:

There are many factors that can influence the rate of cure. These include: the types of substrates used, the condition of the surface to be bonded, the smoothness of the surface, the closeness of the surfaces and the atmospheric conditions.

Substrate	Seconds	Substrate	Seconds
Steel to Steel	20-50	ABS to NBR	3-5
Stainless Steel to Stainless Steel	60-120	NBR to NBR	5-10
Aluminium to Aluminium	10-30	Polycarbonate	5-10
Zinc Plated to Zinc Plated	30-190	Phenolics	30-70
ABS to ABS	25-70		

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Directions For Use:

1. Make sure the surfaces to be bonded are clean and dry. (Solvent wipe plastics, glass, rubber and 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, if left uncapped, may deteriorate by contamination from moisture in the air.
5. Because the adhesive 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.

Handling & Storage:

Storage: Keep products in the unopened container in a cool dry location. The product is best when stored at 2 to 8°C. Temperatures less than 2°C can adversely affect product properties. Do not freeze. Keep the 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 with appropriate debonder. Do not try to remove it forcibly.
3. If the adhesive gets into your 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 (5°C) is recommended.

Disclaimer:

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