Technical Data Sheet

PRODUCT SPECIFICATION
1000-RT
Cyanoacrylate Adhesive

Description:

This clear ethyl cyanoacrylate adhesive delivers superior peel and shock resistance compared with standard grades. Featuring an extended setting time, it affords operators sufficient time to align components accurately after application. Specially formulated to achieve maximum bond strength between close fitting, non porous substrates such as rubber, 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, resulting in an exceptionally strong and resilient bond.

Typical Properties of Cured/Uncured Material:

Liquid State		Cured State	
Base	Ethyl Cyanoacrylate	**Colour**	Clear
Colour	Clear	**Specific Gravity (20°C)**	1.1~1.3
Specific Gravity (20°C)	~1.1	**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 4rpm)	800-1500		

Bond Strength:

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

Substrate	kg/cm_2	Substrate	kg/cm_2
Rigid PVC to Rigid PVC	40-60	**SBR to SBR**	5-10
ABS to ABS	50-70	**Steel to Steel**	190-210
Polycarbonate to Polycarbonate	80-120	**Stainless Steel to Stainless Steel**	>200
Polystyrene to Polystyrene	30-45	**Aluminium to Aluminium**	170-190
Natural Rubber to Natural Rubber	5-9	**Copper to Copper**	150-170
Neoprene to Neoprene	5-9	**Steel to Rigid PVC**	50-60
NBR to NBR	5-9	**Stainless to Neoprene**	5-10
ABS to SBR	5-10		

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
ABS to ABS	<50	**NBR to NBR**	<12
Wood to Wood	>60	**Stainless steel to Stainless steel**	45-55
ABS to Stainless steel	50-60	**ABS to NBR**	3-5
NBR to Stainless steel	>60	**Wood to ABS**	>60

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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: