# TECHNICAL DATA SHEET
# Cynergy CA7503

03/25/2010

W186 N11687 MORSE DRIVE GERMANTOWN, WI 53022
262-502-6610 FAX 262-502-4743

## DESCRIPTION:

*Resinlab* CA7503 is a black, medium viscosity, rubber toughened cyanoacrylate adhesive (CA). This gives the product good resistance to peel and shock loads. It is specifically formulated for bonding rubbers, metals, wood, and various plastics. It meets military specification MLLA 46050 Type I class II.

Common substrates

- Acrylic
- Aluminum
- Wood
- Polycarbonate
- PEEK
- Latex
- Rubbers
- PETG
- Steel

## Set Times:

At standard indoor temperature and humidity, surface moisture on the substrates initiates the curing process. Handle strength is developed in a short time but curing continues for at least 24 hours before full chemical/solvent resistance is developed. The rate of cure will depend on substrate used.

| *Substrate* | *Set Time (seconds)* | *Substrate* | *Set Time (seconds)* |
|---|---|---|---|
| Neoprene Rubber | 12-22 | Steel | 60-100 |
| Nitrile Rubber | 12-22 | Aluminum | 10-25 |
| SBR Rubber | 15-25 | PVC | 50-90 |
| Polyurethane Rubber | 20-25 | Polycarbonate | 30-80 |

## Typical Lap Shear:

| *Substrate* | *Lap Shear (psi)* | *Substrate* | *Lap Shear (psi)* |
|---|---|---|---|
| Neoprene Rubber | > 1740 | Aluminum | > 2465 |
| Nitrile Rubber | > 1740 | Steel | > 3480 |
| SBR Rubber | > 1450 | Polycarbonate | > 1015 |
| PVC | > 870 | | |

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**PHYSICAL PROPERTIES:**
All properties given are at 25°C unless otherwise noted.

| PROPERTY: | VALUE: | TEST METHOD: |
|---|---|---|
| Color | Black | Visual |
| Viscosity | 2,600 – 4,000 cps | Brookfield RVT @ 25°C |
| Nominal Gap fill | 0.5 mm | |
| Specific Gravity | 1.10 | |
| Melting Point Temperature | 160 to 170°C | |
| Glass Transition Temperature | 125°C | ASTM E228 |
| Tensile Strength | 2900 – 3625 psi | |
| Thermal Conductivity | 0.1 W/m°K | ASTM C177 |
| Coefficient of Thermal Expansion | 90 ppm/°C | ASTM D696 |
| Dielectric Strength | 625 v/mil | ASTM D149 |
| Temperature Range | -60 to 80°C | |

**INSTRUCTIONS:**

1. Bring to room temperature prior to use if stored refrigerated. Surfaces should be clean and dry and free of and grease or debris. A light abrasion is recommended if possible.

2. If using an accelerator, apply to one surface only. Apply a thin film of adhesive to the other side and assemble immediately. Do not disturb or re-align joint until parts are set.

3. When bonding “O” rings, cut a fresh surface onto each end of the rubber to gain the best possible strength.

**STORAGE & SHELF LIFE:**

Shelf life is one year at room temperature (77°F / 25°C). Refrigerated storage at 40°F is recommended to maximize shelf life. 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. Do not return unused adhesive to original container. DO NOT refrigerate open containers.