

# TECHNICAL DATA SHEET Cynergy CA7005

03/08/2010

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

#### **DESCRIPTION:**

Resinlab CA7005 is a low viscosity combined with fast cure speed, ethyl cyanoacrylate adhesive (CA). It is specifically formulated for bonding rubbers and plastic parts, but it can be used with a variety of substrates including wood and metal.

### Common substrates

| Acrylic  | Polycarbonate | Rubbers |
|----------|---------------|---------|
| PVC      | PEÉK          | PETG    |
| Wood     | Latex         | Steel   |
| Aluminum |               |         |

### **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) |
|-----------|--------------------|-----------|--------------------|
| Plastics  | 2-10               | Rubbers   | <5                 |
| Steel     | 15-30              | Leather   | 5-15               |
| Aluminum  | 2-10               | Ceramics  | 12-18              |

### **Typical Lap Shear:**

| Substrate          | Lap Shear (psi) | Substrate     | Lap Shear (psi) |
|--------------------|-----------------|---------------|-----------------|
| Grit Blasted Steel | >2900           | Etch Aluminum | >2600           |
| Rubbers            | >3150           | ABS           | >1450           |
| Wood               | >3600           | Polycarbonate | >1700           |



# TECHNICAL DATA SHEET Cynergy CA7005

03/08/2010

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

### **PHYSICAL PROPERTIES:**

All properties given are at 25°C unless otherwise noted.

| PROPERTY:                        | VALUE:      | TEST METHOD:   |
|----------------------------------|-------------|----------------|
| Color                            | Clear       | Visual         |
| Viscosity                        | 80-100 cps  | Brookfield LVT |
| Nominal Gap fill                 | 0.2 mm      |                |
| Specific Gravity                 | 1.05        |                |
| Melting Point                    | 160-170°C   |                |
| Glass Transition Temperature     | 122°C       | ASTM E228      |
| Thermal Conductivity             | 0.1 W/m°K   | ASTM C177      |
| Coefficient of Thermal Expansion | 75 ppm/°C   | ASTM D696      |
| Dielectric Constant              | 2.3         | ASTM D150      |
| Dielectric Strength              | 685 v/mil   | ASTM D149      |
| Temperature Range **             | -60 to 80°C |                |

#### **INSTRUCTIONS:**

- 1. Bring to room temperature prior to use if stored refridgerated. 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  $(77^{\circ}\text{F}/25^{\circ}\text{C})$ . Refrigerated storage at  $40^{\circ}\text{F}$  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.