

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

**DESCRIPTION:**

Cynergy CA7103 is a medium viscosity methyl cyanoacrylate adhesive. It sets extremely quickly, typically in several seconds on most substrates. It was formulated to bond a variety of metals and rubbers with high strength. The product meets Military specification MLLA 46050 Type II Class II.

Common substrates

- |               |                 |                   |
|---------------|-----------------|-------------------|
| ■ Acrylic     | ■ Polycarbonate | ■ Polyimide       |
| ■ PVC         | ■ PEEK          | ■ PETG            |
| ■ Polysulfone | ■ Wood          | ■ Latex           |
| ■ Steel       | ■ Aluminum      | ■ Zinc Dichromate |

**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.

<i>Substrate</i>	<i>Set Time (seconds)</i>	<i>Substrate</i>	<i>Set Time (seconds)</i>
Stainless Steel	20-40	PEEK	20-30
Aluminum	30-60	PES	20-30
Zinc Dichromate	30-60	Neoprene	< 10
PVC	< 10	Nitrile Rubber	5 – 10
ABS	10 -25	Viton	5 – 10

**Typical Lap Shear:**

<i>Substrate</i>	<i>Lap Shear (psi)</i>	<i>Substrate</i>	<i>Lap Shear (psi)</i>
Grit Blasted Steel	>3600	Etch Aluminum	>2900
Zinc Dichromate	>1450	ABS	>2000
Polycarbonate	>1800	Phenolic	725-2125
PVC	>2000	Nitrile	725-2175

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**PHYSICAL PROPERTIES:**

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

<b><u>PROPERTY:</u></b>	<b><u>VALUE:</u></b>	<b><u>TEST METHOD:</u></b>
Color	Clear	Visual
Viscosity	100-150 cps	Brookfield LVT
Nominal Gap fill	5 mil	
Specific Gravity	1.05	
Glass Transition Temp (by DSC)	165 °C	ASTM E228
Melting Point	160-170 °C	
Tensile Strength	2600 psi *	ASTM
Tensile Elongation	1.5% *	
Thermal Conductivity	0.1 W/m <sup>2</sup> K	ASTM C177
Coefficient of Thermal Expansion	80 ppm/°C	ASTM D696
Dielectric Constant	2.5	
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.

**STORAGE:**

Store in a cool dry place away from sunlight, heat or flames for best shelf life. Shelf life is one year unopened from date of manufacture.