

# TECHNICAL DATASHEET

## CML SM-08 Structural Adhesive

### Description

CML SM-08 is a 1:1 meter-mix, methacrylate-based, structural adhesive formulated to bond engineered thermoplastics, thermosets, composites, foams and metal structural elements together in any combination. It has excellent adhesion to un-treated metal surfaces including aluminium, stainless, galvanized steel and plated steels. SM-08 forms tough, high strength bonds without surface preparation, primers or chemical wipes. It features a fast cure time for maximum assembly throughput. SM-08 has outstanding durability and environmental resistance to many common industrial solvents, fuels, lubricants and environmental conditions. This product is formulated as a non-sag, creamy gel, and is easy to dispense through cartridges, static mixer tubes and bulk dispensing equipment. This product is formulated to give outstanding fatigue resistance and high peel values.

Excellent flexibility and toughness enables dissimilar substrates to be securely bonded. The final adhesive bond is designed to be load bearing and resistant to weather, humidity and a wide temperature variation. CML SM-08 is therefore recommended for outdoor weathering or solvent exposure, thermoformed plastic assemblies, PVC, Composites, Vinyls, ABS, Steel, Aluminium, Acrylics, Phenolic, Polycarbonate, Styrenics, Wood, Concrete and Ceramics.

### Benefits:

- Convenient 1:1 mix ratio
- Room temperature curing
- Rapid fixture time
- Minimal surface preparation required
- High resistance to hydrocarbon based fuels (Petrol, jet fuel, Motor oil, and hydraulic fluid)
- Thixotropic/non-sagging
- Bonds dissimilar substrate combinations
- Gap fill up to 12mm

### Handling Properties:

	Adhesive	Activator	Test Method
Density, g/cm <sup>3</sup>	0.98	0.98	ASTM E-201
Viscosity @ 25°C, cPs	70,000	75,000	ASTM D-2393
Colour	off-white	Amber	ASTM D-2393
Mix Ratio by Volume	1	1	Calculated
Working Time	5-6 minutes at 22°C		
Setting Time	7-8 minutes at 22°C		
Full Cure	6 hours		
Shelf Life	Six months from date of shipment if stored at <23°C		

### Cured Properties:

Hardness	60-65 D
Elongation	45%
Operating Temperature	-10 to 120°C

## Bonded Performance:

Tensile Shear (ASTM D-1002) – no surface preparation			
PPO/HIPS	Stock Failure	SMC/SMC	Stock Failure
GRP/GRP	Stock Failure	ABS/ABS	Stock Failure
PVC/PVC	Stock Failure	PMMA/PMMA	Stock Failure
Steel/Steel	24 Mpa	Al/Al	20 Mpa
Peel Strength (ASTM D-1876)			
Steel/Steel	3-4 kN/m		
Impact Strength (ASTM D950-61T grit-blasted steel)			
Steel/Steel	1200 J/m		

## Use

For optimum performance, surfaces should be solvent wiped, free from heavy grease deposits, oil, dirt or other contaminants.

Apply the mixed adhesive directly to the surface and mate within five minutes to be assured of maximum bond strength. Allow application to set for at least 8 minutes before handling. Full cure will be achieved in six hours at 22°C. Working time and fixture time will change depending on ambient temperature.

## Storage & Shelf Life

Adhesive should be stored in a cool, dry place when not in use for extended periods. SM-08 has a shelf life of six months when stored at room temperature. Shelf life may be extended by refrigeration. Do not freeze.

## Packaging

SM-08 is sold in 400ml cartridges, 18.9L (each for Part A and B) and 208L (each for Part A and B) containers.

## Safety & Handling:

Consult Safety Data Sheet before use. Work in well ventilated areas using gloves, eye protection and clothing protection. Avoid contact to the skin and eyes. Avoid clothing contamination. Wash thoroughly after handling. These products may cause skin and respiratory allergic reactions. Consult Safety Data Sheet for complete precautions with this product.

**Important Notice:** The information and statements herein are believed to be reliable, but are not to be constructed as a warranty or representation for which we assume legal responsibility. User's should undertake sufficient verification and testing to determine the suitability for their own particular purposes of any information or products referred to herein. No warranty of fit for purpose is made. Nothing herein is to be taken as permission, inducement, or recommendation to practice and patented invention without licence.