

### Chem-Set 607

Clear Structural Acrylic Adhesive

Crystal clear toughened adhesive for bonding a variety of plastics and metal substrates

Chem-Set 607 is a two-component, 100% reactive, toughened structural methacrylate adhesive specifically formulated for bonding wide variety of Plastic Surfaces.

#### FEATURE:

- ☒ Crystal clear structural adhesive for assembly of plastic surfaces.
- ☒ UV stable with self-leveling liquid.
- ☒ Minimal or no surface preparation
- ☒ Room temperature cured with short open time.

#### APPLICATIONS:

- ☒ Ideal for bonding Plexiglass PMMA, PETG, Polycarbonate, ABS, PVC, FRP, etc.
- ☒ Ideal for Sign & Display industries. Plastic fabrication where clear bond-line is necessary for the appearance.

#### ADHESIVE PROPERTIES:

##### Liquid

	Adhesive	Activator
Appearance	Clear	Off-White
Viscosity @ 25 °C, Brookfield RVT	20,000 – 25,000	10,000 – 15,000
Flash Point (TCC), °F	51	51
Density (lbs/gal)	8.55	8.71
Mix Ratio (weight & Volume)	10	1

##### Cure Characteristics

Mixed Viscosity, cps	22,000 – 28,000
Working Time	6 - 8 minutes
Fixture Time	12 – 14 minutes
Full Cure	24 hours
Service Temperature	-40 °F to 250 °F
Gap Filling	Up to 0.015 inches.
Shore Hardness	75D            ASTM D 2240
Elongation	5%

## **HANDLING AND PRECAUTIONS:**

Read Material Safety Data Sheet before handling or using this product. Adhesive component A contains methyl methacrylate monomer and always use in a well-ventilated area. Activator component B contains peroxide. Both materials must be stored in a cool place away from sources of heat and open flames or sparks. Keep containers closed when not in use. Prevent contact with skin and eyes. In case of skin contact, wash with soap and water. In case of eye contact, flush with water for 15 minutes and seek immediate medical attention. Harmful if swallowed. Keep out of reach of children.

**Note:** The chemical curing reaction that occurs when components A and B are mixed generates heat. The amount of heat generated is controlled by the mass and thickness of the mixed product. Large masses over 1/2 inch thick can develop heat in excess of 250°F/121°C and can generate harmful, flammable vapors. Large curing masses should be carefully moved to a well-ventilated area where the chance of personal contact is minimized.

**DISPENSING EQUIPMENT:** Dispensing directly from disposable cartridges or meter-mix-dispensing equipment is strongly recommended. Both methods employ convenient static motionless mixer technology. Product supplied in pre-measured cartridges is dispensed from approved manual or pneumatic powered guns. When meter-mix dispense systems are used, care must be taken to assure compatibility between the adhesive components and the materials in the equipment that they contact. All wetted metal components should be constructed of stainless steel or aluminum or have a sufficient thickness of chemically resistant material that prevents contact between the adhesive components and the base metal. Contact with copper, zinc, brass or other alloys containing these materials must be strictly prevented. All non-metallic seals and gaskets should be fabricated from Teflon® or UHMW polyethylene based materials..

## **MIXING AND APPLICATION:**

All surfaces must be clean, dry, dust and grease free. Best result will be achieved with surfaces that have been lightly abraded immediately prior to bonding. Always dispense a quantity of adhesive at start-up to assure that the adhesive exiting the tip of the mixer is the proper color and is uniform, without streaks. If previously opened or aged material is being used, allow the purged material to cure to assure quality before proceeding. Carefully dispense a sufficient quantity of adhesive on the substrate to assure that the bond gap will be completely filled when the parts are joined. Allow for squeeze-out at the edges of the bond to assure filling. Carefully secure or clamp parts to prevent joint movement while the adhesive sets. Do not apply excessive pressure that can cause excessively thin gaps and starve the bond line. Test the curing adhesive at the edges for fingernail hardness before removing clamps or fixtures.

**CURING:** Working time is the approximate time, after mixing components A and B that the adhesive remains fluid and bondable. Fixture time is the approximate time after mixing components A and B required for the adhesive to develop sufficient strength to allow careful movement, unclamping or demolding of assembled parts. Parts can generally be put in service when 80 percent of full strength is developed. The time to achieve 80% cure is approximately 2-3 times that required for fixturing.

**CLEAN UP:** Adhesive components and mixed adhesive should be removed from mixing and application equipment with a suitable industrial solvent or cleaner before the mixed adhesive cures. Once the adhesive cures, soaking in a strong solvent or paint remover will be required to soften the adhesive for removal.

## **STORAGE AND SHELF LIFE:**

Shelf life of adhesive (Part A) is 1 year from day of shipment from Chemical Concepts. Shelf life of activator (Part B), including cartridges that contain activators, is 9 months from day of shipment. Shelf life is based on continuous storage between 55°F and 75°F. Long term exposure above 75°F will reduce the shelf life of these materials. Prolonged exposure of activators, including cartridges which contain activators, above 100°F quickly diminishes the product's reactivity and should be avoided. shelf life can be extended by refrigeration (45°F - 55°F). These products should never be frozen.

## **Warranty:**

All information presented in this data sheet is based on laboratory testing under controlled conditions and is not intend for design purposes. Due to variance of storage, handling & application of these materials; Chemical Concepts makes no representations or warranties of any kind concerning this data. The ultimate suitability for any intended application must be verified by the end user under anticipated test conditions. All products purchased from or supplied by Chemical Concepts are subject to terms and conditions set out in the contract. All other information supplied by Chemical Concepts is consider accurate but are furnished upon the express condition the customer shall make its own assessment to determine the product's suitability for a particular purpose. Chemical Concepts makes no other warranty, either express or implied, including those regarding such other information, the data upon which the same is based, or the results to be obtained from the use thereof; that any product shall be merchantable or fit for any particular purpose; or that the use of such other information or product will nor infringe any patent.