

# ADHESIVE



## MP20

### Two Part Methacrylate

MP20 is a two-component, 100% reactive structural adhesive specifically formulated for bonding thermoplastics, metals and composite assemblies.

- Convenient 1:1 mix ratio, Non-sagging and thixotropic formulation
- Excellent adhesion to metal surfaces such as aluminum, stainless steel, plated steel, galvanized metals, etc. without primer or chemical wipes.
- Excellent impact, peel and shear resistance
- Room temperature cured with extended open time.

#### APPLICATIONS:

- Ideal for bonding all types of metals, PVC, Fiberglass, PBT, PPO, ABS, FRT, Polyurethane, Epoxy, Wood, RIM, Nylon, Polyesters, Acrylics, Gel coats, Styrene, Aluminum, Stainless Steel, Cold Rolled Steel, etc.
- Ideal for Automotive Components, Marine Assemblies, Electronics Enclosures, Appliances, Aerospace Parts, Electrical Components, Furniture, Exterior Sign and display, Plastic & Metal Fabrication, etc.

#### PHYSICAL PROPERTIES (UNCURED):

**VISCOSITY @ 25°C (cps): RESIN 50,000**

**ACTIVATOR 50,000**

**COLOR: Natural (off white)**

**MIXED DENSITY: 8.00**

**MIX RATIO: VOLUME 1 TO 1**

**WEIGHT 1 TO 1**

**FLASH POINT: 51°F**

#### PHYSICAL PROPERTIES (CURED):

**STRENGTH (PSI): SHEAR 3800psi**

**WORK TIME: 12-20 MINUTES**

**HANDLING STRENGTH: 30-35 MINUTES**

**GAP FILL: .375 INCHES**

**TEMPERATURE RANGE: -40°F - +250°F**

#### 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.

**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 de-molding 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 Parson. 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.

**DISCLAIMER**

The data contained within this Technical Data Sheet are furnished for information only and are believed to be reliable at the time of issue. We cannot assume responsibility for results obtained by others over whose methods we have no control. It is the responsibility of the user to determine the products suitability for use. Adhesive R&D and its distributors and agents accept no liability arising out of the use of this information or the products described herein.

rev 2014