

## ACCESSORIES & EQUIPMENT

### Plastic Panel Information and Repair - Escalade, Suburban, Tahoe, Yukon

## SPECIFICATIONS

### FLEXIBLE PLASTIC PART REPAIR MATERIALS

Product - 88861039, \*88861040, High Strength Plastic Repair 50 ml

Components - 12 cartridges with 2 mixers each

Structural and Cosmetic

#### Recommended Repair Material

| Product                                                                                                                                        | Components                          | Recommended Repair Material                                                                                                                                             | Work Time 70Â°F | Handling Strength at 70Â°F |
|------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|----------------------------|
| 88861039<br>*88861040<br>High<br>Strength Plastic Repair 50<br>ml                                                                              | 12 cartridges with 2 mixers<br>each | Structural and cosmetic<br>bonding and repairing of all<br>flexible plastics. Requires GM<br>P/N 12378462 on TPO<br>plastics. Will also bond<br>e-coated/primed metals. | 90 seconds      | 10 minutes                 |
| * TPO, TEO, (Polyolefin Plastics) require the application of polyolefin adhesive primer before the GM P/N 88861039 repair compound is applied. |                                     |                                                                                                                                                                         |                 |                            |

#### Working Time

| Product                                                           | Adhesive Sandability at 70Â°F | Part Paintability at 70Â°F | Adhesive Full Cure at 70Â°F | Program                                                                  |
|-------------------------------------------------------------------|-------------------------------|----------------------------|-----------------------------|--------------------------------------------------------------------------|
| 88861039<br>*88861040<br>High<br>Strength Plastic Repair 50<br>ml | 20 minutes                    | 30 minutes                 | 24 hours                    | Bumper covers, emblems,<br>door trims, exterior and<br>interior repairs* |

| Product                                                                                                                                        | Adhesive Sandability at 70°F | Part Paintability at 70°F | Adhesive Full Cure at 70°F | Program |
|------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|---------------------------|----------------------------|---------|
| * TPO, TEO, (Polyolefin Plastics) require the application of polyolefin adhesive primer before the GM P/N 88861039 repair compound is applied. |                              |                           |                            |         |

## RIGID PLASTIC PART REPAIR MATERIALS

| Thermoset Plastic Type                                 | Type of Repair                         | Recommended Repair Material                                                                                | Availability                                                         |
|--------------------------------------------------------|----------------------------------------|------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| Sheet metal compound (SMC),<br>RIM rigid plastic parts | Cosmetic filling                       | GM Goodwrench® Structural Bonding Epoxy (GM P/N 12345726 or equivalent)                                    | GM Dealer                                                            |
|                                                        |                                        | Sikkens Polystop LP™ or equivalent polyester repair putty                                                  | Refer to a local paint supplier                                      |
| Most rigid plastic parts                               | Cosmetic repair, adhesive bonding      | GM Goodwrench® Structural Bonding Epoxy (GM P/N 12345726 or equivalent)                                    | GM Dealer                                                            |
|                                                        |                                        | Lord Fusor® SMC Body Panel Repair Adhesive or equivalent                                                   | Refer to local paint supplier                                        |
| Most rigid plastic parts                               | Adhesive bonding                       | GM Goodwrench® Structural Bonding Epoxy (GM P/N 12345726 or equivalent)                                    | GM Dealer                                                            |
|                                                        |                                        | Dynatron Dyna-Weld Plio Grip® or equivalent (OE structural adhesive)                                       | Refer to local paint supplier                                        |
| Most rigid plastic parts                               | Adhesive structural* bonding           | GM Goodwrench® Structural Bonding Epoxy (GM P/N 12345726 or equivalent)                                    | GM Dealer                                                            |
| Most rigid plastic parts                               | Adhesive bonding<br>Structural bonding | Ashland Pliogrip® 7773B-3-minute<br>Ashland Pliogrip® 7779B-10-minute<br>Ashland Pliogrip® 7770B-35-minute | Supplied by Crest Industries<br>1-800-822-4100<br>fax 1-800-344-4461 |

| Thermoset Plastic Type                                                                                                                                          | Type of Repair                    | Recommended Repair Material                                                                                                                                                | Availability                                        |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| SRIM most rigid plastic parts                                                                                                                                   | Cosmetic repair, adhesive bonding | GM Goodwrench® SRIM™ repair kit (GM P/N 12378523) or SIA™ Adhesives, INC. SRIM™ repair kit P/N 30208030001 adhesive 200ML TUBES P/N 30208020001 50ML TUBES P/N 30208010001 | SIA Adhesives, INC. customer service 1-330-374-2468 |
| * Structural adhesive bonding may require the use of a pneumatic applicator, A8-37479-1A, or equivalent, to speed the application of the GM P/N 12345726 epoxy. |                                   |                                                                                                                                                                            | Kent-Moore 1-800-GM-TOOLS                           |

## REPAIR INSTRUCTIONS

### GENERAL PLASTIC REPAIR

**WARNING:** In order to reduce the risk of personal injury when exposed to toxic fumes while grinding, cutting, or applying repair material on any type of sheet molded compound or RIM rigid plastic, observe the following guidelines:

- Work in a properly ventilated area
- Apply protective cream to any exposed skin
- Remove any mixture that comes into contact with skin
- Wash skin with cold water to remove glass and resin dust
- Use a sander with a vacuum attachment
- Follow the repair material manufacturer's instructions

Also, always wear the following:

- An approved respirator, or air supplied respirator
- Eye protection
- Rubber gloves
- Earplugs
- Protective clothing

The following procedures should be followed when repairing all types of thermoset plastic:

- Follow the manufacturer's application and curing recommendations.
- Do not intermix systems. Use the supplies and the repair materials from the same manufacturer.
- Clean the inner and outer surfaces of the repair area with a soap impregnated scouring pad in order to remove any dirt or mold release agent.
- Clean the area with a wax and grease remover, using only enough of the remover to dampen a cloth. Allow the panel to dry thoroughly.
- Remove the surface finish from the area to be repaired. Adhesives are designed to adhere to the plastic substrate, not the finish.
- Prime a metal surface before applying the repair material.
- Inspect the rear side of the work area before making repairs in order to avoid possible damage to wires, motors, etc.

## **DESCRIPTION AND OPERATION**

### **HOW TO IDENTIFY PLASTIC PARTS**

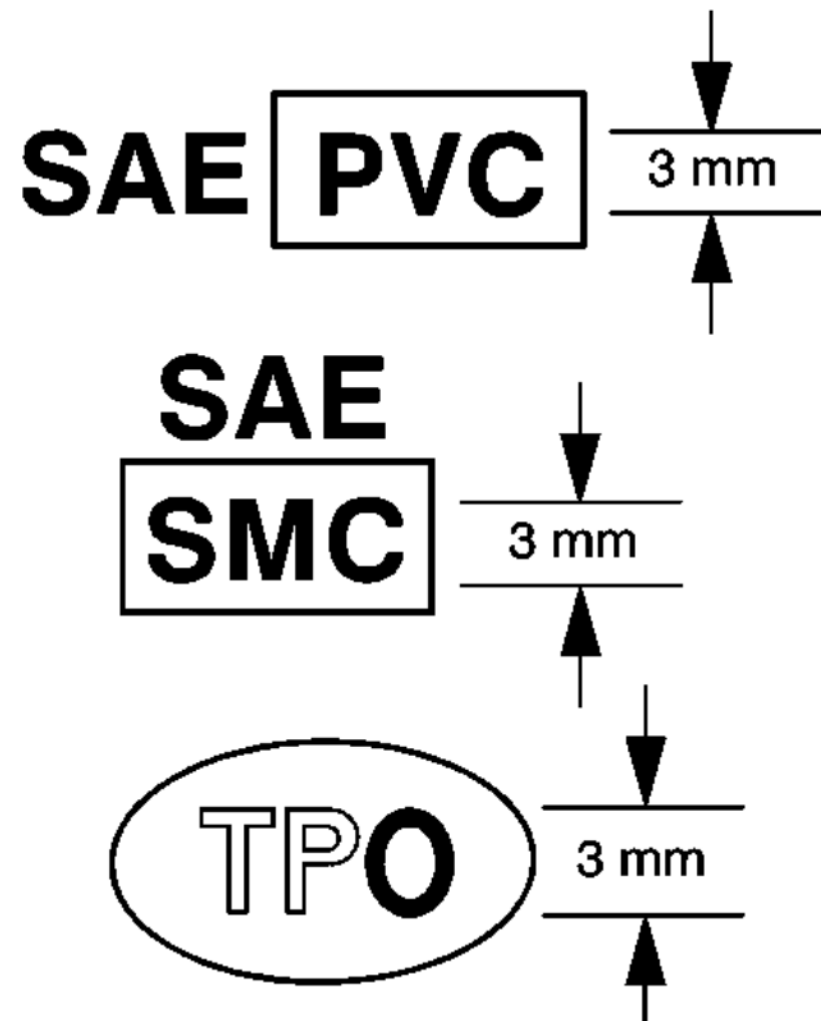


**Fig. 1: SAE Code**

Courtesy of **GENERAL MOTORS COMPANY**

Plastic parts can be identified by the SAE code, which is usually found on the rear of the part, and/or by the characteristics of the plastic. Knowing the type of plastic aids in selecting the proper repair materials and in selecting the proper repair procedure.

Look for the SAE code stamped into the part.

### Code Found

Match the code to those in the plastic identification chart to determine whether the plastic is thermoplastic or thermoset plastic, and whether the plastic is rigid or flexible. Refer to [Plastic Identification and Refinishing Systems](#).

### No Code Found

**WARNING:** Do NOT use a plastic burn test to distinguish the type of plastic. The burn test produces vapors which are harmful.

Perform one or both of the following tests to determine if the part is thermoplastic polyolefin or thermoset non-polyolefin.

### Float Test

1. Cut a shaving of plastic from the back of the part.

The shaving should be free of mold release agents and paint.

2. Place the shaving in a container of water.
  - Thermoplastic polyolefin floats.
  - Thermoset non-polyolefin sinks.

### Abrasion Test

- Sand a spot near the damaged area with Grade 36 Roloc Disc.
- Thermoplastic polyolefin material melts or frays when sanded.
- Thermoset non-polyolefin material sands cleanly.

Thermoplastic and thermoset plastics can be either rigid or flexible. Thermoplastic plastic parts are best repaired with a hot iron plastic material-feed welder, but are usually replaced. Thermoset plastic can be repaired with epoxy or other more rigid 2 package repair material.

- For rigid thermoset repair materials, refer to [Rigid Plastic Part Repair Materials](#).
- For flexible thermoset repair materials, refer to [Flexible Plastic Part Repair Materials](#).
- For general repair instructions, refer to [General Plastic Repair](#).

## PLASTIC IDENTIFICATION AND REFINISHING SYSTEMS

| Identifying Symbol<br>- Old Symbol in (s) | Chemical Composition or Plastic<br>Family Name               | Typical Area(s) Where<br>Part is Used                                                                 | Examples of<br>Common/Trade Names                             | Type of Plastic      |
|-------------------------------------------|--------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|----------------------|
| ABS                                       | Acrylonitrile / Butadiene-Styrene                            | Armrest Support, Console,<br>IPC, Steering Column<br>Bracket / Jacket, Trim<br>Molding                | ABS, Absafil, Magnum,<br>Cycolac, Dyel, Kralastic,<br>Lustran | Thermoplastic        |
| ABS + PC                                  | Acrylonitrile / Butadiene-Styrene +<br>Polycarbonate         | Instrument Panel, IPC                                                                                 | Bayblend, Cycloy, KHA,<br>Pulse                               | Rigid                |
| ABS / PVC                                 | ABS/Vinyl (Soft)                                             | Head Rest Cover,<br>Instrument Panel Pad, Trim<br>Molding / Panel                                     | ABS Vinyl                                                     | Flexible, Vinyl      |
| EPDM                                      | Ethylene Propylene Diene Monomer                             | Body Panel, Bumper<br>Impact Strip                                                                    | EPDM, Nordel                                                  | Rigid                |
| EVA (EVAC)                                | Ethylene / Vinyl Acetate                                     | Head Rest Cover, Misc<br>Soft Trim                                                                    | Elvax, Microthane                                             | Flexible             |
| PA                                        | Polyamide                                                    | Headlamp Bezels, Quarter<br>Panel Extensions, Exterior<br>Finish Trim Panels                          | Nylon, Capron, Zytel, Rilsan,<br>Minlon, Vydyne, Welland      | Rigid                |
| PA, PAG, PAGG                             | Polyamide                                                    | Exterior Finish Trim Panel,<br>Headlamp Bezel, Quarter<br>Panel Extension                             | Capron, Minlon, Nylon,<br>Rilsan, Vydyne, Wellamid,<br>Zytel  | Rigid, Thermoset     |
| PA + PPE                                  | Polymide + Polyphenylene Ether                               | Exterior Trim, Fender                                                                                 | GTX                                                           | Rigid, Thermoset     |
| PBT + TEEB (PBTP<br>+ EEBC)               | Polybutylene, Terephthalate + Ether,<br>Ester Block Compound | Fascia, Rocker Panel<br>Molding                                                                       | Bexloy M                                                      | Rigid                |
| PC                                        | Polycarbonate                                                | Interior Rigid / Hard Trim<br>Panel, Valance Panel                                                    | Calibre, Lexan, Merlon,<br>Makrolon                           | Rigid, Thermoset     |
| PC + PETP                                 | Polycarbonate + Polybutylene,<br>Terephthalate               | Bumper Fascia                                                                                         | Macroblend, Valox, Xenoy                                      | Flexible, Thermoset  |
| PE                                        | Polyethylene                                                 | Fuel Tank Shield, Inner<br>Fender Panel, Interior Trim<br>Panel, Seat Belt Cover,<br>Spoiler, Valance | Alathon, Dylan, Foriflex, Hi-<br>fax, Hosalen, Marlex, Paxon  | Rigid, Thermoplastic |
| PF                                        | Phenol Formaldehyde                                          | Ashtray                                                                                               | Amberol, Bakelite, Durez,<br>Genal, Phenolic, Plyophen,       | Rigid, Thermoset     |

| Identifying Symbol<br>- Old Symbol in (s)                                                                                             | Chemical Composition or Plastic<br>Family Name | Typical Area(s) Where<br>Part is Used                                                                                                                          | Examples of<br>Common/Trade Names                                      | Type of Plastic            |
|---------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|----------------------------|
|                                                                                                                                       |                                                |                                                                                                                                                                | Resinox                                                                |                            |
| PP                                                                                                                                    | Polypropylene                                  | Bumper Fascia, Cowl<br>Panel, Deflector Panel,<br>Door Panel, Inner Fender,<br>Interior Molding, Kick<br>Panel, Load Floor,<br>Radiator Shroud, Wheel<br>Cover | Azdel, Daplen, Escorene,<br>Marlex, Novolen, Oleflo,<br>Profax, Tenite | Flexible,<br>Thermoplastic |
| PPE (PPO)                                                                                                                             | Polyphenylene Ether                            | Bezels, Chromed Plastic,<br>Headlamp Door,<br>Ornaments                                                                                                        | Noryl, Oleflo, Prevex                                                  | Rigid, Thermoset           |
| PS                                                                                                                                    | Polystyrene                                    | Dash Panel, Door Panel                                                                                                                                         | Durathon, Dylan, Lustrex,<br>Polystyrol, Styron                        | Flexible, Soft             |
| PUR                                                                                                                                   | Polyurethane, Thermoset<br>(Unsaturated)       | Bumper Fascia, Filler<br>Panel, Front/Rear Body<br>Panel, Pickup Box                                                                                           | Bayflex, Castethane, RIM,<br>RRIM, SRIM                                | Thermoset                  |
| PVC                                                                                                                                   | Polyvinyl Chloride (Vinyl)                     | Interior Soft Trim, I/P<br>Skins, Roof Cover                                                                                                                   | Geon, Pliovic, Unichem,<br>Vinoflex, Vinyl, Vinylite                   | Flexible, Vinyl            |
| SAN (SA)                                                                                                                              | Styrene Acrylonitrile                          | Center Console, Glove Box<br>Door, Interior Trim Panel                                                                                                         | Foracryl, Lustran, Tyril                                               | Rigid                      |
| TEO (EP, EPM,<br>TPO)                                                                                                                 | Ethylene / Propylene (Rubber)                  | Air Dam, Bumper Fascia,<br>Valance Panel                                                                                                                       | EPI, EPII, TPO, TPR<br>(Thermoplastic Rubber)                          | Flexible,<br>Thermoplastic |
| TPO                                                                                                                                   | Thermal Plastic Oletin                         | Bumper Covers                                                                                                                                                  | TPO                                                                    | Flexible Thermoplastic     |
| TPU (TPUR)                                                                                                                            | Polyurethane, Polyolefin                       | Bumper Fascia, Gravel<br>Deflector, Soft Filler Panel,<br>Window Molding                                                                                       | Estane, Pellethane, Roylex,<br>Toxin                                   | Flexible,<br>Thermoplastic |
| UP                                                                                                                                    | Polyester / Thermoset                          | Air Scoop, Air Spoiler,<br>Fascia Extension, Hood,<br>Instrument Housing, Rear<br>Compartment Lid, Roof,<br>Ventilation Grid                                   | Fiberglass, Premi-glass,<br>Selectron, SMC, Vibrinmat                  | Rigid, Thermoset           |
| For symbols not listed in this table, contact the Society of Automotive Engineers, 400 Commonwealth Drive, Warrendale, PA 15096-0001. |                                                |                                                                                                                                                                |                                                                        |                            |

