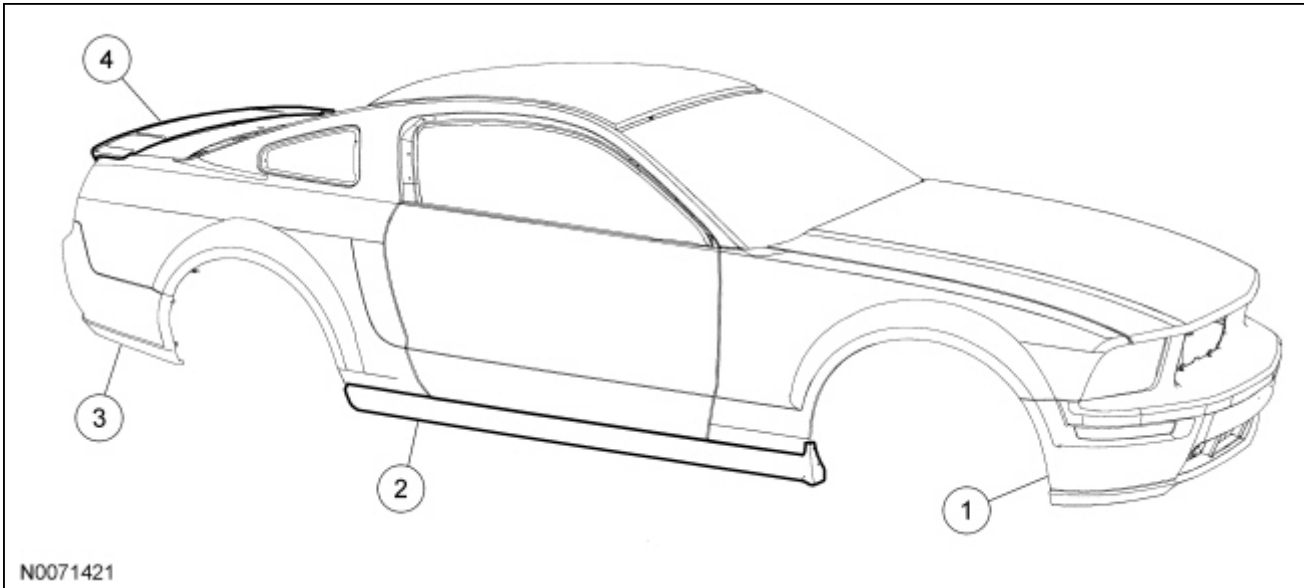


## Plastic Components

### Exterior Plastics — Painted

**NOTE:** The following illustration(s) are not all-inclusive of trim levels available. The actual trim level of the vehicle will determine the viability of carrying out a plastic repair.



Item	Part Number	Description
1	17D957	Bumper cover (front) — Thermoplastic Olefin (TPO)
2	10155 LH/ 10154 RH	Rocker panel moulding — <a href="#">TPO</a>
3	17K835	Bumper cover (rear) — <a href="#">TPO</a>
4	41602	Decklid spoiler — Acrylonitrile Butadiene Styrene (ABS)

Several considerations will determine viability of plastic repair procedure(s):

- Is the damage cosmetic or structural?
- Can the repair be carried out on the vehicle?
- Is the part readily available?
- Is component repair the most cost effective method?
- Can the component be economically restored to original strength and appearance?
- Will the repair provide for the fastest, highest quality repair?

Several types of plastic are in use for automotive application. However, all plastics will fall into 2 primary categories of thermoplastic or thermosetting plastic.

### Thermosetting Plastic

Generally, thermosetting plastics are made with 2-part thermosetting resins. When mixed together, heat is generated, producing a cure that is irreversible. Because of this, thermosetting plastics will require the use of a 2-part adhesive for repair.

### Sheet-Molded Compound

Sheet-Molded Composite (SMC) is a type of thermosetting plastic that uses glass fibers or nylon fibers in combination with thermosetting polyester resins. When fully cured [SMC](#) is strong and rigid.

[SMC](#) is similar to, but not identical to fiberglass. Ford Motor Company uses [SMC](#) in components such as fenders, hoods and liftgates.

### **Thermoplastic Compounds**

Thermoplastic compounds are manufactured by a process that is reversible. Thermoplastics can be remolded repeatedly by reheating. This characteristic of thermoplastics makes plastic welding a possible repair alternative. A repair of thermoplastic compounds is still possible through the use of 2-part adhesive and filler repair materials and reinforcements as needed. Thermoplastics are widely used in interior trim components, wheel flares, body side cladding and bumper covers.

### **Polyolefin**

Polyolefins fall into the family of thermoplastics with one unique characteristic: an oily or waxy feel to the material when sanded or ground. Polyolefin lends itself very well to remolding through the use of heat. Because of this, components made of this material lend themselves well to the possibility of plastic welding. Most adhesive repair materials and paint will not bond to surface of a polyolefin unless an adhesion promoter specially formulated for plastic is first applied to the exposed raw surface. Otherwise, polyolefins are repaired like most other thermoplastics. Some typical uses of polyolefins are bumper covers, fan shrouds and wheel housings

Correct identification of the various types of plastic is necessary to select the appropriate repair method(s) to carry out high quality plastic repairs. Refer to [Plastics Identification](#) in this section.

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