



IDENTIFICATION OF POLYMERIC MATERIALS

1. INTRODUCTION

1.1 THIS STANDARD IMPLEMENTS A SYSTEM FOR POLYMERIC PART MATERIALS IDENTIFICATION THAT:

- 1.1.1** Designates the material from which the part is fabricated whether plastic or rubber.
- 1.1.2** Designates the type and percentage of filler/reinforcer, if present, and 10%, or greater, by weight
- 1.1.3** Designates the total weight of specified polymeric material
- 1.1.4** Facilitates the selection of optimum materials/processes for service, repair and repainting
- 1.1.5** Allows segregation of polymeric materials for recycling

2. DEFINITIONS (Reserved)

3. REQUIREMENTS

3.1 IDENTIFICATION OF POLYMERIC MATERIALS SHALL CONFORM TO THE FOLLOWING:

- 3.1.1** Size, geometry, and the effective function of the part permitting, all polymeric parts weighing 50 grams or more shall be marked with appropriate symbols to designate the type of polymer and filler/reinforcer used to fabricate the part.
- 3.1.2** Marking should be designated to remain permanent and legible during the lifetime of the part. Wherever practical, markings should be molded into the part. Where molding is not a practical method of adding the symbol, whatever means is used to add the Ford Motor Company trustmark or part number should be used. See [Figure E-4.1](#).
- 3.1.3** Polymer material identification shall be per ISO 1043 (referencing ISO 11469) for plastic and/or per ISO 1629 for rubber with the following note appearing either on the face of the drawing or in the General Note area of the part drawing.

MATERIAL RECYCLING CODE _____ * _____ TO APPEAR ON PART
PER ISO 1043 (referencing ISO 11469, PLASTIC) AND/OR ISO 1629
(RUBBER).

*Plastic or Rubber identification code to be shown in this space

ENGINEERING CAD & DRAFTING STANDARDS

3.2 MATERIALS WITH POST CONSUMER RECYCLED CONTENT.

3.2.1 The following note for a part containing material with recycled content shall specify the total weight of the material and the total recycled material content by weight and percent. These notes shall appear on the part drawing in the General Note area. Recycled content marking is not required on the part itself.

MATERIAL WEIGHT _____

RECYCLED MATERIAL WEIGHT AND PERCENT
CODE _____ / _____

3.2.1 For component assemblies that are fabricated from more than one polymer, these notes shall be repeated for each polymer specified.

3.3 STANDARD SYMBOL.

3.3.1 The symbol identification shall be bracketed by the greater than and less than symbols (> <), as shown in Figure E-4.1, and in the examples below.

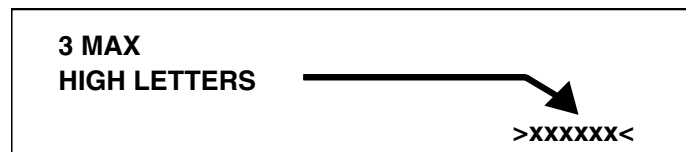


Figure E-4.1

3.4 SYMBOLS FOR FILLERS AND REINFORCING MATERIAL.

3.4.1 The Materials Engineer responsible to sign off on drawings of polymers parts will provide the drafting activity with the exact identification symbols for the plastic material and filler/reinforcer content to be shown on the drawing, as defined per ISO 1043 (referencing ISO 11469) for plastic and/or per ISO 1629 for rubber.

3.5 FOAM PARTS.

3.5.1 Foam parts shall be marked with appropriate symbol to designate the type of polymer used in the same manner as parts made with any other polymer.

ENGINEERING CAD & DRAFTING STANDARDS

3.6 MARKING OF LAMINATED PARTS.

3.6.1 Laminated parts such as Instrument Panel and Lamp Assemblies shall be marked to clearly identify each of the materials.

For example:

CARRIER > SMA+PS - GF20 <

LAYER 1 > TPU <

SKIN > PVC <

OR

HOUSING > PP - TD40 <

BODY > PP <

LENS > PC <

BEZEL > PC <

3.7 SYMBOL LOCATION AND SIZE ON MANUFACTURED PART.

3.7.1 Available space permitting, the primary location of this symbol will be next to the Ford Motor Company trustmark.

Example: *Ford Motor Company*
>PA66 – GF30<

3.7.2 The secondary location of this symbol will be next to the part number.

Example: XR3C–XXXXX–AA
>PA66 – GF30<

3.7.3 If neither of these locations is feasible, the identification should be located in any available space. When the size or configuration of the part is such that the trademark and/or part number interfere with application of the material identification symbols, the trademark and part number shall take precedence.

NOTE: Although the call-out on the drawing is shown in 3mm lettering, this does not mean that the same size lettering will be used on the manufactured part.

3.7.4 Actual size of the identification symbol on the part will be determined by the responsible design engineer.

3.7.5 The markings should be located where they can be observed after the component is assembled in the vehicle, but not visible from the viewpoint of the vehicle owner. Parts covered by other components should have markings that are not covered with foam, adhesive, deadener, etc. after the covering component has been removed during dismantling.

3.8 EXAMPLES OF POLYMERIC MATERIAL IDENTIFICATION.

ENGINEERING CAD & DRAFTING STANDARDS

3.8.1 See ISO 1043 for Plastic coding and ISO 1629 for Rubber coding requirements.

>PA66 – GF30<	with 30% glass fiber
>PA66 – (GF15+M25)<	with 15% glass fiber and 25% mineral. In this case the mineral is not identified.
>PA66 – (GF15+P25)<	with 15% glass fiber and 25% mica. In this case the specific mineral shall be identified as mica.
>PA66 – (GF+M)40<	with a composite of glass fiber and mineral that constitutes 40% of the part weight. In this case the specific percentage of each filler/reinforcer is not identified.
>NBR<	Acrylonitrile-Butadiene
>CSM,AR,EPDM<	Hypalonm Cover, Aramid Reinforcing, Acrylonitrile-Butadiene

4. SPECIFICATIONS (Reserved)

5. ADDENDUM (Reserved)