



MOLDING COMPOUND, IDENTIFICATION OF RECYCLED CONTENT

WRS-M99P42-A1

1. SCOPE

The material defined by this specification is a thermoplastic, thermoset, elastomeric compound or insulation material (felt) based on recycled grades of post industrial (PIR) or post consumer (PCR) origin.

2. APPLICATION

This specification provides direction to the suppliers of components with recycled content.

3. REQUIREMENTS

3.1 STANDARD REQUIREMENTS FOR PRODUCTION MATERIALS

Material suppliers and part producers must conform to the Company's Standard Requirements for Production Materials (WSS-M99P1111-A).

3.2 MATERIAL IDENTIFICATION

RECYCLED CONTENT: The portion of a material's or product's weight that is composed of materials that have been recovered from or otherwise diverted from the scrap stream, either from the manufacturing process (PIR) or after consumer use (PCR). Recycled content can be either PIR or PCR, but not home scrap.

3.2.1 Post Industrial Recycled content (PIR)

Scrap which is a by-product of the manufacturing process and is re-used in the manufacture of a part. Several exclusions apply, e.g., home scrap. Each case should be evaluated by Material Engineering for final approval.

3.2.2 Post Consumer Recycled content (PCR)

Scrap generated by consumers which has been re-used in the manufacturing of a new part. Examples are used carbonated drink bottles which are reused to make grill opening panels, or used bumpers whose material is re-incorporated in different % in the mix of materials used for the production of new bumpers.

3.2.3 Repolymerised Recycled content (PIR/PCR)

Repolymerised materials originate from at least one polymeric material which is depolymerised in a chemical process to its monomers/oligomers. The monomers/oligomers are then repolymerised on their own or with the addition of different monomers (these could be either virgin or recycled).

Date	Action	Revisions	Rev. 1
2013 01 03	Revised	Added release date for WSS-M99P42-A.	
2011 03 29	Activated	Replaces WSS-M99P42-A released 2007 07 10	



Example: PCR or PIR Polyethyleneterephthalate (PET) repolymerised with Butyldiol (BDO) to Polybutyleneterephthalate (PBT).

NOTE: NOT TO BE CLASSED AS RECYCLED CONTENT:

- **Home Scrap:** Material commonly reused by the industry within the original manufacturing process (standard practice). Examples include materials which are regranulated and re-moulded within a facility. Home scrap is not considered recycled content.
- **Reganulated (regrind):** should not be considered recycled content if it is home scrap (see definition above).
- **Off spec materials:** these are virgin materials that did not meet the specification they were produced to; nevertheless they would never be disposed of in landfill and are generally sold to be recompounded.

3.3 RESTRICTED SUBSTANCES REPORTING

Material suppliers and part producers shall report on the materials content of their products using the International Material Data System (IMDS). See the Ford Restricted Substance Management Standard, WSS-M99P9999-A1.

IMDS Reporting of recycled content:

- Only the weight of the recycled content within the component or assembly should be reported. Do not report the component or assembly weight as recycled content. This weight is reported and totaled separately.
- For PCR only, suppliers do not have to report "Declarable" substances unless otherwise specified, although suppliers must report any substances that are listed in this Standard as "Prohibited" or "Prohibited above threshold".

3.4 MATERIAL IDENTIFICATION FOR RECYCLING PURPOSES

All polymeric (plastic, elastomeric or synthetic fiber) parts shall be marked for recycling per Ford Motor Company Engineering CAD and Drafting Standard E-4.

NOTE: Use latest publication of ISO 18064: Thermoplastics elastomers - Nomenclature and abbreviated terms.

4. GENERAL INFORMATION

The information given below is provided for clarification and assistance in meeting the requirements of this specification. Contact gmfs@ford.com for questions concerning Engineering Material Specifications.

5. SUMMARY OF REVISIONS

2013 01 04 Added release date for WSS-M99P42-A.