

**STYRENE BUTADIENE RUBBER (SBR), EXTRUSION  
AND/OR COMPRESSION MOLDING, POST CONSUMER  
RECYCLATE****WSS-M2D492-A1****1. SCOPE**

The material defined by this specification is a combination of pre-consumer recycled thermoset elastomer (SBR, and/or blends of SBR and natural rubber) and fiber, modified with a minimum of 25% granulated post-consumer scrap derived from used tires.

**2. APPLICATION**

This specification was released originally for material used in air baffles, splash shields, air management systems and sight shields.

**3. REQUIREMENTS****3.0 STANDARD REQUIREMENTS FOR PRODUCTION MATERIALS**

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

**3.4 MATERIAL TESTING****3.4.1 Preparation of Test Specimens**

Whenever possible, all test specimens shall be die-cut from the finished parts. When not feasible, specimens cut from molded test sheets manufactured from the same material and equivalent cure to molded parts are recommended. The test sheets shall have the following dimensions:

150 x 150 mm, min x 2.0 +/- 0.2 mm

**3.5 ORIGINAL PROPERTIES**

|       |                                                                                                                                |                                 |
|-------|--------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
| 3.5.1 | Density<br>(ISO 1183, Method A/ASTM D 297)                                                                                     | 1.16 +/- 0.05 g/cm <sup>3</sup> |
| 3.5.2 | Hardness, Durometer A<br>(ISO 868/ASTM D 2240, instantaneous,<br>plied-up specimen. Hand held<br>durometers shall not be used) | 76 +/- 5                        |
| 3.5.3 | Tensile Strength, min<br>(ASTM D 412, Die C)                                                                                   | WMD 3.4 MPa<br>AMD 2.2 MPa      |
| 3.5.4 | Elongation at Break, min<br>(Test Method according to para 3.5.3)                                                              | WMD 15%<br>AMD 40%              |

| Date       | Action    | Revisions                                         |
|------------|-----------|---------------------------------------------------|
| 2004 11 30 | Revised   | Inserted 3.0; Deleted 3.1, 3.2, 3.3, 3.7, 3.8 & 4 |
|            | Revised   | Deleted old para 3.5.7, 3.7; Rev. 3.6             |
| 1995 11 07 | Activated |                                                   |

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|       |                                                                                                                               |                            |
|-------|-------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| 3.5.5 | Tear Strength, min<br>(ISO 34, Method B, Procedure (a)/<br>ASTM D 624, Die B)                                                 | WMD 26 kN/m<br>AMD 35 kN/m |
| 3.5.6 | Brittleness Point, max<br>(ISO 812, Type B specimen/<br>ASTM D 2137, Method A)                                                | -40 °C                     |
| 3.5.7 | Compression Set, max<br>(ISO 813/ASTM D 395, Method B,<br>except 25% compression, plied-up<br>specimens, 22 h at 70 +/- 2 °C) | 40%                        |

### 3.6 HEAT AGED

(ISO 188/ASTM D 573, 70 h at  
70 +/- 2 °C)

|       |                              |        |
|-------|------------------------------|--------|
| 3.6.1 | Hardness Change              | +/- 10 |
| 3.6.2 | Tensile Strength Change, max | 30%    |
| 3.6.3 | Elongation Change, max       | 30%    |
| 3.6.4 | Visual Evaluation            |        |

No surface tackiness or cracks when folded flat against itself.

## 5. GENERAL INFORMATION

The information given below is provided for clarification and assistance in meeting the requirements of this specification.

### 5.1 MATERIAL IDENTIFICATION FOR RECYCLING PURPOSES

>SBR<