



POLYPROPYLENE PHOSPHORESCENT PIGMENT FILLED, INTERIOR

WSS-M4D556-A7

1. SCOPE

The material defined by this specification, is a Phosphorescent Pigment Filled Polypropylene.

2. APPLICATION

This specification was released originally for materials used for the emergency trunk release handle.

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).

3.1.1 All requirements of this specification, identified by symbol (s), shall be met with data representing 3 sigma values.

3.2 MOLDING COMPOUND

3.2.1 Melt Flow Rate 3 -11 g/10 minutes
(ISO 1133, 230 °C, 216 kg)

3.3 MOLDED TEST SPECIMEN

3.3.1 Preparation of Test Specimens

Unless otherwise specified, all tests shall be carried out on injection molded one-end gated test specimens.

The following dimensions are required:

- A. 150 min x 10 x 4.0 +/- 0.2 mm (Tensile Bar, ISO 3167)
- B. 120 x 10 x 4.0 +/- 0.2 mm

Specimens with shorter dimensions shall be cut from the center portion of the test specimen A and/or B. The specimens shall be prepared according to ISO 294. No annealing allowed.

3.3.2 Density 1.07 - 1.15 g/cm³
(ISO 1183, Method A)

3.3.3 Tensile Strength at Yield, min 20 Mpa
(ISO R 527, 150 min x
10 x 4.0 +/- 0.2 mm specimen,
50 mm/minute test speed)

Date	Action	Revisions
2006 08 10	Revised	Revised Format
2002 07 16	Activated	



3.3.4	Flexural Modulus, min (ISO 178, 80 x 10 x 4.0 +/- 0.2 mm specimen, 2 mm/minute test speed, 64 mm support span)	1.5 Gpa
3.3.5	Impact Strength, Izod, min (ISO 180/1A, 80 x 10 x 4.0 +/- 0.2 mm specimen, 10 specimens for each test)	
3.3.5.1	At 23 +/- 2 °C	2.8 kJ/m ²
3.3.5.2	At -40 +/- 2 °C	1.5 kJ/m ²
3.3.5.3	At 10 +/- 2 °C	2.5 kJ/m ²
The test specimens must be conditioned for minimum of 6 h at the above specified temperature prior to impact test. Low temperature testing shall be done within the cold box.		
3.3.6	Heat Deflection Temperature, min (ISO 75, 120 x 10 x 4.0 +/- 0.2 mm specimen, 0.32 +/- 0.01 mm deflection)	
3.3.6.1	At 1.80 Mpa	55 °C
3.3.6.2	At 0.45 Mpa	90 °C
3.3.7	Heat Aging Performance (ISO 188, except 150 +/- 50 air changes/h, 1000 h at 85 °C +/- 2 °C.) Unaged property values shall be determined at the time of the aged properties determination)	
3.3.7.1	Tensile Strength at Yield Change (Test Method per para 3.3.3)	+/- 20%

3.4 FOGGING

(SAE J1756, 3 h at 100 °C heating, 21 °C cooling plate, post test conditioning 1 h and 16 h)

Fog Number, min 80

Formation of clear film, droplets or crystals is cause for rejection.

3.5 FLAMMABILITY

(ISO 3795)

Burn Rate, max 100 mm/minute

The specimen size required for material approval is 355 x 100 x 1.0 +/- 0.1 mm with a smooth surface.

