

**POLYBUTYLENE TEREPHTHALATE, 30% GLASS FILLED,
INTERIOR****WSS-M4D929-A3****1. SCOPE**

The material defined by this specification is a 30% glass filled thermoplastic molding compound based on polybutylene terephthalate.

2. APPLICATION

This specification was released originally for material used for molded in color register vanes.

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 MOLDING COMPOUND

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|-----|-------|--|----------|
| (s) | 3.4.1 | Glass Fiber Content
(ISO 3451/1, Method A) | 28 - 32% |
| (s) | 3.4.2 | Melt Temperature, min
(ISO 3146, Method C,
10 °C/min heating rate) | 221 °C |

3.5 MOLDED TEST SPECIMEN**3.5.1 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.

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| 3.5.2 | Density
(ISO 1183, Method A) | 1.50 - 1.60 g/cm ³ |
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Date	Action	Revisions
2006 07 19	Revised	Inserted 3.0; Deleted 3.1, 3.2, 3.3, 3.9, 3.10 & 4; Fixed numbering in 3.5.7
2000 02 04	Activated	



(s) 3.5.3 Tensile Strength at Max Load, min 95 MPa
(ISO R 527, 150 minimum x
10 x 4.0 +/- 0.2 mm specimen,
5 mm/min)

(s) 3.5.4 Flexural Modulus, min 7.5 GPa
(ISO 178, 80 x 10 x 4.0 +/- 0.2 mm
specimen, 2 mm/min test speed,
64 mm support span)

(s) 3.5.5 Impact Strength, Izod, min
(ISO 180/1A, 80 x 10 x 4.0
+/- 0.2 mm specimen, 10 specimens
for each test)

3.5.5.1 At 23 +/- 2 °C 6.0 kJ/m²

3.5.5.2 At -40 +/- 1 °C 4.5 kJ/m²

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.

(s) 3.5.6 Heat Deflection Temperature, min
(ISO 75, 120 x 10 x 4.0
+/- 0.2 mm specimen, flatwise
0.32 +/- 0.01 mm deflection)

3.5.6.1 At 1.80 MPa 190 °C

3.5.6.2 At 0.45 MPa 210 °C

All specimens dry as molded. If not tested immediately after molding,
specimens must be stored in a sealed, moisture-proof container filled
with silica gel.

3.5.7 Heat Aging Performance
(ISO 75, 120 x 10 x 4.0 +/- 50 Air
changes/h, 1000 h at 140 +/- 2 °C.
After heat aging test specimens are
to be conditioned in a desiccator for
3 - 5 h at 23 +/- 2 °C. Unaged property
values shall be determined at the time
of the aged properties determination)

3.5.7.1 Tensile Strength at max +/- 25%
load percent change
(Test Method per para 3.5.3)

3.5.7.2 Impact Strength, Izod +/- 25%
Change
(Test Method per para 3.5.6.1,
specimens to be notched before
heat aging)