



**Polypropylene - 40% Calcium Carbonate Filled, Extrusion Grade
Homopolymer. Do Not Use on New Programs; No Replacement
Do Not Use on New Programs; Replaced by GMW18193**

1 SCOPE. This specification covers the properties of a 40% calcium carbonate filled, extrusion grade, polypropylene homopolymer.

1.1 APPLICATIONS. Typical applications include the following: co-extruded air dams.

2 REFERENCED STANDARDS.

GM1002M	ISO 180/1A	ISO 1183
ASTM D3012	ISO 188	ISO 3451/1
ISO 75	ISO 294/1	ISO 3795
ISO 178	ISO 527	SAE J1686

3 REQUIREMENTS. Materials approved to this specification shall meet the standard requirements in GM1002M.

3.1 COMPOUND CERTIFICATION. Material suppliers must certify molding compound properties to the specific GM Test Sampling Plan approved for their material.

3.2 COMPOUND PROPERTIES (NATURAL AND BLACK). See Table 1.

4 TEST PROCEDURES.

4.1 Test specimens shall be injection molded per ISO 294/1, as described in SAE J1686, unless otherwise specified.

4.2 All test values indicated herein are based on material conditioned in a controlled atmosphere of $23 \pm 2^\circ\text{C}$ and $50 \pm 5\%$ RH for 40 - 96 h prior to test and tested under the same conditions unless otherwise specified. No annealing is allowed.

TABLE 1 - COMPOUND PROPERTIES (NATURAL AND BLACK)

Properties	Test Values	Test Methods
% Filler exclusive of Carbon Black	38 - 42%	ISO 3451/1, Method A
Density	1.24 - 1.27 g/cm ³	ISO 1183, Method A
Flexural Modulus	2500 MPa min	ISO 178, 80 x 10 x 4.0 mm specimen (use center section of specimen A), 2 mm/minute test speed, 64 mm support span, tangent calculation
Tensile Strength at Break	20 MPa min	ISO 527-1 and ISO 527-2, 150 x 10 x 4.0 mm specimen (specimen A). Test Speed = 5 mm/minute
Deflection Temperature Under Load	59°C min	ISO 75, test flatwise, Load = 1820 kPa, Reference SAE J1686
Thermal Oxidative Stability	No visual degradation	ASTM D3012, 150°C, for 336 h
Notched Izod Impact Strength		ISO 180/1A, 80 x 10 x 4 mm specimen (use center section of specimen A)
@ 23 °C ± 2°C	10.0 kJ/m ² min	
@ -40°C ± 2°C	2.5 kJ/m ² min	

5 Release and Revisions

This standard was originated in December 1994. It was first published in June 1995.

Issue	Publication Date	Description (Organization)
1	JUN 1995	Initial publication.
2	MAR 1999	ASTM to ISO
3	JAN 2013	Limited for Current Use. (Plastics)
4	SEP 2019	Superceded by GMW18193. (Materials)