

POLYETHYLENE, HIGH DENSITY BLOW MOLDING GRADE COPOLYMER, RECYCLED**1. SCOPE**

1.1 The material defined by this specification is high density, precolored recycled polyethylene molding compound.

1.2 This specification may involve hazardous materials, procedures and apparatus. This specification does not address the health and safety problems associated with its application or use. It is the specification user's responsibility to follow appropriate health or safety practices and determine the application or regulatory limitation prior to use.

2. APPLICATION

This specification was originally released for material used in an exterior application for floor boards requiring weathering resistance and UV stability.

3. DESIGNATION

3.1 The Engineering drawing shall contain the following notation for the specification of the subject plastic. As described in Standard 86511126 (FNHA-3-B-100), the Applicable Standards blocks will each include a space for one standard. The part number shall be the number of this specification and the name shall be the name of this specification.

4. RELATED STANDARDS

ASTM D638 - Test Methods for Tensile Properties of plastics

ASTM D648 - Test Method for Deflection Temperature of Plastic Under Flexural Load

ASTM D695 - Test Methods for Compressive Properties of Rigid Plastics

ASTM D790 - Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical insulating Materials

ASTM D792 - Test Methods for Specific Gravity (Relative Density) and Density of Plastics by Displacement

ASTM D1238 - Test Method for Flow Rates of Thermoplastics by Extrusion Plastometer

ASTM D1505 - Test Method for Density of Plastics by the Density-Gradient Technique

ASTM D1525 - Test Method for Vicat Softening Temperature of Plastics

ASTM D1822 - Test Method for Tensile Impact Energy to Break Plastics and Electrical Insulating Materials

5. REQUIREMENTS**5.1 RAW MATERIAL**

Shown in Table 1

5.2 FORMED PART

Shown in Table 1

5.3 HEAT RESISTANCE

There shall be no visible permanent distortion or color change after the following conditions.

Test Method: the unmounted finished part shall be subjected to 102 +/-3 deg C for 3 hr in a mechanical convection oven. The test specimen shall be shielded from the direct velocity of the high temperature air. Allow part to return to room temperature. Note observations.

					NAME	STD POLYETHYLENE RHD				
					 NEW HOLLAND		ENGINEERING SPECIFICATION			
							FRAME	1	OF	3
							PART NUMBER			
							86505154			
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MATERIALS / PLASTICS**FNHA-2-D-001.00****5.4 SOLVENT RESISTANCE**

There shall be no visible deleterious effects such as cracking, crazing, color change, or other surface conditions.

Test Method: Immerse a 1.0 inch (25mm) portion of a sample usually 1 X 3 in (25 X 75 mm) in the solvents listed below for 2 hrs at 23 +/-2 deg C.

- * Petroleum Naphtha
- * Trichlorethylene
- * Kerosene
- * Methyl Ethyl Ketone

5.4.1 Resistance to Weathering

In addition to requirements specified below, samples shall exhibit no more than 40% decrease in tensile strength after exposure to weathering.

5.4.2 Weatherometer

The material shall not stain, chalk, exhibit color change or change in hue in accordance with rating AATCC Gray Scale for Evaluating Change in Color(10 step) after 1600 hr exposure.

5.4.3 Florida Exposure

After exposure to Florida weathering (5 deg South, DWI) for one (1) year, samples shall not exhibit objectional color change nor surface degradation.

5.5 APPEARANCE

The color and finish shall match that of the master samples approved for production.

5.6 FLAMMABILITY 4 in/min MAX

In addition, the test specimen shall not exhibit any flashing or sudden flaming on either surface in excess of the above maximum value.

5.7 INFRARED SPECTROPHOTOMETRY

New Holland at its option, may conduct infrared analysis of material/parts supplied to this specification. The curves established for initial approval shall constitute the reference standard and shall be kept on file at New Holland, Inc. All samples shall produce curves that correspond to the reference standard when tested under the same conditions as those on the master cure.

6. APPROVAL OF MATERIALS

Materials defined by this specification must have prior approval by the responsible Materials Engineering Activity. Suppliers desiring approval of their materials shall first obtain an expression of interest from the effected Purchasing, Design or Supplier shall submit to the affected Materials Engineering Activity its own Laboratory report to the specification (test results, not nominal values), the material designation and code number, and test specimens for New Holland Inc. evaluation. Upon approval, the material will be added to the Materials Engineering Approved Source List.

7. SUPPLIER'S RESPONSIBILITY

All materials supplied to this specification shall be equivalent in all characteristics to the material upon which approval was originally granted. Prior to the making of any changes in the properties, composition, construction, color, dimensions, processing or labeling of the material originally approved under this specification, the supplier shall notify Purchasing and the affected Materials Engineering activity of the proposed changes and obtain the written acknowledgement of the Material Engineering activity. Test data, test samples and a new identification code are to be submitted with the request.

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