



Designation: D 5203 – 9802

Standard Specification for Polyethylene Plastics Molding and Extrusion Materials from Recycled Post-Consumer (HDPE) Sources¹

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INTRODUCTION

This specification provides for the identification of post-consumer recycled high-density polyethylene plastics (HDPE) plastics molding and extrusion materials derived from specified sources. It provides for the identification of resin characteristics and certification so that the user and the supplier can agree on the acceptability of shipments of the plastic materials. This specification provides that the source of the materials be listed as an aid in identifying the material. The tests described in this specification are intended to provide additional information for identifying these materials.

¹ This specification is under the jurisdiction of ASTM Committee D20 on Plastics and is the direct responsibility of Subcommittee D20.125 on ~~Olefin Plastics~~. Thermoplastic Materials (Section D20.15.01).

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1. Scope *

1.1 This specification provides for the identification of recycled post-consumer HDPE molding and extrusion materials, from specified sources, in pellet or chip form so that the supplier and the user can agree on the acceptability of lots or shipments. This specification covers post-consumer HDPE materials from the following: (1) blow molded household chemical containers, (2) blow molded milk, juice, and water containers, (3) materials from the spunbonded process, (4) thermoformed packaged food containers and personal care packages, (5) injection molded packaged food containers and beverage bottle base cups, and (6) injection molded housewares and industrial articles such as pails, crates, totes, and pallets. Other post-consumer HDPE materials may be added to this specification when such material streams are characterized.

1.1.1 The tests described in this specification are intended to provide information for identifying these materials. The separation by sources improves the usefulness of the materials.

1.1.2 It is not the function of this specification to provide specific data for design purposes.

1.2 This specification provides a procedure to certify that the materials are from post-consumer sources.

1.3 The values stated in SI units are to be regarded as the standard. The inch-pound units given in parentheses are for information only.

1.4 The following precautionary caveat pertains only to the test method portion, Section 10, of this specification: *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

NOTE 1—There are no ISO standards covering the primary subject matter of this specification.

2. Referenced Documents

2.1 ASTM Standards:

D 618 Practice for Conditioning Plastics and Electrical Insulating Materials for Testing²

D 638 Test Method for Tensile Properties of Plastics²

D 790 Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials²

D 792 Test Methods for Specific Gravity (Relative Density) and Density of Plastics by Displacement²

D 883 Terminology Relating to Plastics²

D 1238 Test Method for Flow Rates of Thermoplastics by Extrusion Plastometer²

² Annual Book of ASTM Standards, Vol 08.01.

*A Summary of Changes section appears at the end of this standard.