



Designation: D7711 – 23

Standard Guide for Description of Polymer Pellet Defects¹

This standard is issued under the fixed designation D7711; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

1. Scope*

1.1 This guide is a compilation of terms used to describe defects of polymeric pellets. Terms that are generally understood or defined adequately in readily available sources are not included.

1.2 Not every term is applicable to every type of pellet. Terms which apply to transparent pellets, for example, do not always apply to translucent or opaque pellets.

1.3 *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, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

NOTE 1—There is no known ISO equivalent to this guide.

1.4 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 *ASTM Standards:*²

D883 Terminology Relating to Plastics

D6290 Test Method for Color Determination of Plastic Pellets

3. Terminology and Definitions

3.1 *Definitions of Terms*—For definitions of terms relating to plastics, see Terminology **D883**. Terms contained in Terminology **D883** are not contained in this guide.

3.2 *Definitions of Terms Specific to This Standard:*

TERMS ASSOCIATED WITH COLOR DEFECTS:

3.2.1 *discoloration, n—of a pellet*, any deviation from the product's normal color.

3.2.1.1 *Discussion*—Discoloration may not always be easily visible. Pellets which differ in color with respect to the appearance of a representative sample population are commonly referred to by their distinguishing visible characteristics.

3.2.2 *opaque center pellet, n—pellet* that is translucent or slightly translucent and has a center that is less clear (more opaque) by comparison to the remainder of the pellet.

3.2.3 *striped pellet, n—pellet* containing a stripe of a different color than the remainder of the pellet.

TERMS ASSOCIATED WITH PELLET CONTAMINATION DEFECTS:

3.2.4 *die pearls, n—non-degraded particles* that build up and break off of the die.

3.2.5 *drools*—see *die pearls*

3.2.6 *finer, n—very small particles, dust, or unattached tails.*

3.2.7 *foreign material contamination, n—of pellets*, any material in, on, or around the pellets that emanates from an external source and has a composition different than that of the pellet; also known as trash if it can be picked up separately.

3.2.8 *oxidized pellet, n—pellet* with a deep yellow, brown, red, or black particle present.

3.2.9 *polymer cross-contamination, n—of a pellet*, unintentional mixture of two or more dissimilar resins or compounds; generally apparent by comparing key properties such as pellet geometry, color, opacity, or hardness.

3.2.10 *speck contamination, n—of a pellet*, small pinpoint particles of discolored matter, internal or external, which can sometimes rub off.

3.2.10.1 *Discussion*—Examples of speck contamination of pellets include, but are not limited to: black, brown, yellow, or white specks.

TERMS ASSOCIATED WITH PELLET SIZE OR SHAPE DEFECTS:

3.2.11 *agglomerates, n—of pellets*, thoroughly fused accumulation of pellets.

3.2.12 *angel hair, n—relating to pellets*, thin, fiber or thread-like strands of polymer.

¹ This guide is under the jurisdiction of ASTM Committee **D20** on Plastics and is the direct responsibility of Subcommittee **D20.92** on Terminology.

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

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