Designation: D2452 – 15 (Reapproved 2019)

Standard Test Method for Extrudability of Oil- and Resin-Base Caulking Compounds[1]

This standard is issued under the fixed designation D2452; 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 test method describes the laboratory procedure for determining the rate of extrusion of oil- and resin-base caulking compounds.

1.2 The values stated in metric (SI) units are to be regarded as the standard. The values given in parentheses are provided for information only.

1.3 The subcommittee with jurisdiction is not aware of any similar ISO standard.

1.4 *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.*

1.5 *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]

C717 Terminology of Building Seals and Sealants

D1475 Test Method for Density of Liquid Coatings, Inks, and Related Products

3. Terminology

3.1 *Definitions*—Definitions of the following terms are found in Terminology C717: caulking compound, compound, sealant, standard conditions.

4. Significance and Use

4.1 The rate of extrusion determined by this test may be correlated with the rate of gunning of the compound.

5. Apparatus

5.1 *Press-Flow Extrusion Rheometer* constructed in accordance with Fig. 1.

5.2 *Air Supply and Pressure Gage,* accurate to 6.9 kPa (1 psi).

5.3 *Clamps and Stand* to hold rheometer.

5.4 *Balance,* accurate to 0.01 g.

5.5 *Stopwatch.*

5.6 *Spatula (Steel).*

5.7 *Weight-per-gallon Cup,* capacity 83.2 cm^3.

6. Reagent

6.1 *Solvent,* such as methyl ethyl ketone.

7. Sampling

7.1 The compound to be tested shall be taken from a previously unopened container and thoroughly mixed before using.

8. Conditioning

8.1 After thoroughly cleaning the press-flow rheometer with solvent, condition the compound and the rheometer in the laboratory for at least 5 h at standard conditions.

9. Procedure

9.1 Remove the orifice holder from the rheometer cylinder and hold the open end up, making sure that the follower plate remains inside.

9.2 Fill the cylinder with compound, avoiding air pockets. Strike off the filled cylinder with a spatula and replace the bottom orifice cap. Connect the tube to an air supply and fix it to a support stand above the balance.

9.3 Adjust the air pressure to 207 kPa (30 psi) and open the air valve. If the pressure drops, readjust to 207 kPa while extrusion is in progress. Close the air valve and discard this extruded compound. The apparatus is now ready for testing.

[1] This test method is under the jurisdiction of ASTM Committee C24 on Building Seals and Sealants and is the direct responsibility of Subcommittee C24.20 on General Test Methods.

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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.