



Designation: C 570 – 00

Standard Specification for Oil- and Resin-Base Caulking Compound for Building Construction¹

This standard is issued under the fixed designation C 570; 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.

This standard has been approved for use by agencies of the Department of Defense.

1. Scope

1.1 This specification covers the properties of a one-component oil- or resin-base caulking compound, or both, for use in building construction. Oil- and resin-base defines the group that will oxidize and surface skin as opposed to the nondrying type primarily designed for application to concealed surfaces.

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

1.3 The following precautionary caveat pertains only to the test method portion, Section 9, 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.*

1.4 The committee with jurisdiction over this standard is not aware of any comparable standard published by other organizations.

2. Referenced Documents

2.1 ASTM Standards:

- C 717 Terminology of Building Seals and Sealants²
- D 2202 Test Method for Slump of Sealants²
- D 2203 Test Method for Staining from Sealants²
- D 2377 Test Method for Tack-Free Time of Caulking Compounds and Sealants²
- D 2450 Test Method for Bond of Oil- and Resin-Base Caulking Compounds²
- D 2452 Test Method for Extrudability of Oil- and Resin-Base Caulking Compounds²
- D 2453 Test Method for Shrinkage and Tenacity of Oil- and Resin-Base Caulking Compounds²

3. Terminology

3.1 Definitions—Refer to Terminology C 717 for definitions

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² Annual Book of ASTM Standards, Vol 04.07.

of the following terms: caulking, caulking compound, compound.

4. Classification

4.1 The caulking compound shall be available in two types:

4.1.1 *Type I*, for use in hand- or power-operated caulking guns.

4.1.2 *Type II*, for application with a putty knife.

5. Materials and Manufacture

5.1 Caulking shall be composed of pigments and fillers compounded with drying oils and resins to conform to the requirements prescribed in this specification.

5.2 All material and workmanship shall be in accordance with good commercial practice. The producer is permitted a wide latitude in choice of raw materials for making these products. Consequently, there is no implication that the compounds are equivalent in all physical properties.

5.3 The manufacturing process shall be such as will ensure a homogeneous mix, free of defects that will affect serviceability, and of a consistency suitable for immediate application.

6. General Requirements

6.1 The compound in the original container shall be stable for at least 12 months from the time of delivery when stored at a temperature not exceeding 80°F (26.6°C).

6.2 Unless otherwise specified, the color shall be in the normal commercial range of colors such as white, natural, and gray.

6.3 The compound is intended for use only on clean dry surfaces.

7. Physical Requirements

7.1 The physical properties of the compound shall conform to the requirements specified in Table 1.

8. Sampling

8.1 The compound to be tested shall be selected at random from a single previously unopened commercial container, and shall be thoroughly mixed before withdrawing enough for the tests specified in Table 1. The sample shall be placed in an airtight glass or metal container immediately after it is collected. The size of this container shall be such that excessive air

TABLE 1 Physical Requirements

Property	Requirements	ASTM Test Method
Shrinkage, max, %	20	D 2453
Tenacity, min, folds	6	D 2453
Bond, max, % loss	10	D 2450
Slump, max, in. (mm)	0.15 (3.8)	D 2202
Stain:		
maximum index	6.0	D 2203
alternative method, mm	1.5	
Tack-free time, amount of material adhering to polyethylene strip	none	D 2377
Extrudability, max, s/mL	9	D 2452

space does not exist over the caulking compound.

9. Test Methods

9.1 Perform all tests described in 9.2-9.7 in a laboratory controlled at $75 \pm 2^{\circ}\text{F}$ ($24 \pm 1^{\circ}\text{C}$) and $50 \pm 10\%$ relative humidity. Condition caulking samples for at least 5 h at these conditions before any tests are made.

9.2 *Shrinkage and Tenacity*—Test Method D 2453.

9.3 *Bond*—Test Method D 2450.

9.4 *Slump*—Test Method D 2202.

9.5 *Stain*—Test Method D 2203 (disregard reference to Method C 510).

9.6 *Tack-Free Time*—Test Method D 2377.

9.7 *Extrudability* (Type I compounds only)—Test Method D 2452.

10. Packaging and Package Marking

10.1 Unless otherwise specified in the contract or order, the material shall be packaged in standard commercial containers so constructed as to ensure acceptance by common or other carrier for safe transportation at the lowest rate to the point of delivery.

10.2 Shipping containers shall be marked with the name, grade, and the quantity of the material contained therein, as defined by the contractor order under which shipments are made. The name of the manufacturer, the lot, and batch number of the contract or order and the date of manufacture, shall also be shown.

11. Keywords

11.1 bond; caulking compound; extrudability; shrinkage; slump; stain; tack-free time

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