

Designation: C 647 – 95

Standard Guide to Properties and Tests of Mastics and Coating Finishes for Thermal Insulation¹

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1. Scope

1.1 This guide identifies properties of mastics and coating finishes characterizing their performance as finishes for thermal insulation.

1.2 These properties relate to application and service. Each property is defined, and its significance and suggested test methods are described.

1.3 The properties appear in the following order in this guide.

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Build	6.3
Wet Flammability	6.4
Toxicity	6.5
Temperature and Humidity Range	6.6
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1.4 The values stated in inch-pound units are to be regarded as the standard. The values given in parentheses are for information only.

2. Referenced Documents

2.1 ASTM Standards:

- C 419 Practice for Making and Curing Test Specimens of Mastic Thermal Insulation Coatings²
- C 461 Test Methods for Mastics and Coatings Used with Thermal Insulation²
- C 488 Test Method for Conducting Exterior Exposure Tests of Finishes for Thermal Insulation²
- C 639 Test Method for Rheological (Flow) Properties of Elastomeric Sealants³
- C 681 Test Method for Volatility of Oil- and Resin-Based, Knife-Grade, Channel Glazing Compounds³
- C 733 Test Method for Volume Shrinkage of Latex Sealants³
- C 755 Practice for Selection of Vapor Retarders for Thermal Insulation²
- C 792 Test Method for Effects of Heat Aging on Weight Loss, Cracking, and Chalking of Elastomeric Sealants³
- D 36 Test Method for Softening Point of Bitumen (Ring-and-Ball Apparatus)⁴
- D 56 Test Method for Flash Point by Tag Closed Tester⁵
- D 92 Test Method for Flash and Fire Points by Cleveland Open Cup⁵
- D 93 Test Methods for Flash Point by Pensky-Martens Closed Cup Tester⁵
- D 529 Test Method for Accelerated Weathering Test Conditions and Procedures for Bituminous Materials (Carbon-Arc Method)⁴
- D 543 Test Method for Resistance of Plastics to Chemical Reagents⁶
- D 562 Test Method for Consistency of Paints Using the Stormer Viscometer⁷
- D 638 Test Method for Tensile Properties of Plastics⁶
- D 658 Test Method for Abrasion Resistance of Organic Coatings By Air Blast Abrasive⁷
- D 747 Test Method for Apparent Bending Modulus of Plastics by Means of a Cantilever Beam⁶
- D 790 Test Methods for Flexural Properties of Unreinforced

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² *Annual Book of ASTM Standards*, Vol 04.06.

³ *Annual Book of ASTM Standards*, Vol 04.07.

⁴ *Annual Book of ASTM Standards*, Vol 04.04.

⁵ *Annual Book of ASTM Standards*, Vol 05.01.

⁶ *Annual Book of ASTM Standards*, Vol 08.01.

⁷ *Annual Book of ASTM Standards*, Vol 06.01.