~~Designation:F484–02~~ Designation: F 484 – 08

Standard Test Method for Stress Crazing of Acrylic Plastics in Contact with Liquid or Semi-Liquid Compounds[1]

This standard is issued under the fixed designation F 484; 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 test method covers determination of the crazing effect that a liquid or semi-liquid test compound will have on transparent acrylic plastic material that is under bending stress.

1.2 Three types of acrylic material are covered. One, two, or all of the materials shall be used in the test, as specified by the procuring agency. When not specified otherwise, all three types of acrylic shall be used in the test.

~~1.3~~

1.3 The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered 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 and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 *ASTM Standards:* [2]

D 1193 Specification for Reagent Water

2.2 *Military Standards:*

MIL-PRF-5425 Plastic Sheet, Acrylic, Heat Resistant[3]

MIL-PRF-8184 Plastic Sheet, Acrylic, Modified[3]

~~MIL-P-25690~~MIL-PRF-25690 Plastic, Sheets and Formed Parts, Modified Acrylic-Basic, Monolithic, Crack Propagation Resistant[3]

3. Terminology

3.1 *Definitions:*

3.1.1 *craze*—a minute surface crack, sometimes hairline in size.

NOTE 1—Hairline craze cracks are very difficult to see except with careful inspection under properly oriented light.

3.1.2 *crack*—a fracture or tear.

4. Types

4.1 *Type A*, cast acrylic material shall conform to MIL-PRF-5425, Finish A.

4.2 *Type B*, cast acrylic material shall conform to MIL-PRF-8184, Finish B.

4.3 *Type C*, stretched acrylic material shall conform to MIL-PRF-25690.

5. Apparatus

5.1 *Stress Apparatus*—The means of stressing the acrylic plastic test specimen bars shall be as shown in Fig. 1.

---

[1] This test method is under the jurisdiction of ASTM Committee F07 on Aerospace and Aircraft and is the direct responsibility of Subcommittee F07.07 on Qualification Testing of Aircraft Cleaning Materials.

~~Current edition approved May 10, 2002. Published July 2002. Originally published as F484–77. Last previous edition F484–83 (1998)ε1.~~

Current edition approved April 1, 2008. Published April 2008. Originally approved in 1977. Last previous edition approved in 2002 as F 484 – 02.

[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* ~~, Vol 11.01.~~volume information, refer to the standard's Document Summary page on the ASTM website.

[3] Available from Standardization Documents Order Desk, Bldg. 4 Section D, 700 Robbins Ave., Philadelphia, PA 19111-5098, Attn: NPODS.