



Standard Classification for Natural Muscovite Mica Splittings¹

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1. Scope

1.1 This specification covers the determination of muscovite mica splittings of standard commercial grades and specifies the maximum allowable physical defects for each grade. It is applicable to commercially available natural muscovite mica splittings regardless of the basic color of the mica or its source.

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 This standard is very similar to ISO 6386. It is expected that materials would be classified identically using the criteria of either standard. The grades shown under “ASTM Grade No.” in Table 1 and Table 2 are shown under “Old Grade No.” in ISO 6386.

2. Referenced Documents

2.1 ASTM Standards:

- D 351 Classification for Natural Muscovite Block Mica and Thins Based on Visual Quality²
- D 1711 Terminology Relating to Electrical Insulation²

2.2 ISO Publications:

- ISO 6386-1981 Muscovite Mica Splittings—Grading and Visual Classification³

3. Terminology

3.1 For definitions relating to mica and for terms applicable to this standard, refer to Terminology D 1711, and Classification D 351.

4. Classification

4.1 Mica splittings are classified by size, form, and visual quality and properties.

4.2 Thirteen grades, based on size and form, are described as given in Table 1.

4.3 Within the grades, up to thirteen categories of visual quality may be separately specified, as listed in Section 6. Not all of the visual quality categories are available in all grades.

5. Physical Properties

5.1 Natural muscovite mica splittings shall meet the size requirements specified in Table 1. Classification D 351, Table 1 and Fig. 1, define more completely the areas and minimum dimensions that define the size grades, and which should be used in conjunction with Table 1 of this specification.

5.2 There shall not be more than the maximum allowable total defects specified in Table 2 based on percentage weight. Such defects shall not lie predominantly in any one category.

5.3 There shall not be more of any single defect than the percentages specified where a specific percentage is allowed for such defect.

5.4 There shall not be any foreign matter included among the splittings.

6. Visual Quality

6.1 Where specified, the visual quality shall conform to the description of the visual category specified, as given in Classification D 351:

- 6.1.1 V-1—Clear,
- 6.1.2 V-2—Clear and Slightly Stained,
- 6.1.3 V-3—Fair Stained,
- 6.1.4 V-4—Good Stained,
- 6.1.5 V-5—Stained A Quality,
- 6.1.6 V-5.1—Stained Quality,
- 6.1.7 V-6—Stained B Quality,
- 6.1.8 V-7—Heavy Stained,
- 6.1.9 V-8—Densely Stained,
- 6.1.10 V-9—Black Dotted,
- 6.1.11 V-10—Black Spotted,
- 6.1.12 V-11—Black Stained, and
- 6.1.13 V-12—Black/Red Stained

6.2 Refer to Classification D 351 for a complete description of the visual quality categories.

¹ This specification is under the jurisdiction of ASTM Committee D09 on Electrical and Electronic Insulating Materials and is the direct responsibility of Subcommittee D09.19 on Dielectric Sheet and Roll Products.

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² *Annual Book of ASTM Standards*, Vol 10.01.

³ Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036.