



Designation: D 3252 – 73 (Reapproved 1979)

Standard Test Method for UNDERSIZED LOOSE MUSCOVITE MICA SPLITTINGS¹

This Standard is issued under the fixed designation D 3252; 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.

1. Scope

1.1 This method covers sampling and testing Grade No. 6 loose mica splittings for “undersize.”

2. Summary of Method

2.1 The test sample is placed in a perforated drum (Fig. 1) and rotated for a specific time at a specified speed; the undersized particles are collected and weighed.

3. Significance

3.1 The “percent undersize” obtained by this method (8.3.1) is an index or figure of merit; it is not an absolute value. This method is for use as a control and acceptance test.

4. Apparatus

4.1 *Perforated Drum*—A perforated drum 18 in. (457 mm) long and 15 in. (381 mm) in diameter, constructed of 0.025-in (0.64 mm) steel plate with perforations of 0.75 in. (19.1 mm) in diameter and an open area of $61 \pm 2\%$. It shall be driven by a constant-speed motor at the rate of 15 rpm (see Figs. 1 and 2).

4.2 *Beam Balance*, having a sensitivity of ± 0.1 g.

4.3 *Catch Pan*, 0.0625 by 6.25 by 20 in. (1.588 by 158.75 by 508 mm).

5. Sampling

5.1 Take a minimum of 1 lb (454 g) so as to be representative of the entire case for each case sampled. Sample at least 10 % of the cases in a lot.

5.2 Perform one test per sample.

6. Procedure

6.1 Thoroughly clean the drum and pan of all splittings and particles.

6.2 Obtain the tare weight of the pan, ± 0.1 g.

6.3 Weigh out 300 ± 3 g of mica splittings selected at random from the sample.

6.4 Place the sample into the drum.

6.5 Rotate the drum for 2 min at a rate of 15 rpm.

6.6 Remove the catch pan with the undersized splittings and weigh, ± 0.1 g.

7. Calculations

7.1 Calculate the percent of undersized-splittings as follows:

$$[(P' - P'')/S] \times 100$$

where:

P' = weight of the pan and particles, g,

P'' = tare weight of the pan, g, and

S = weight of the sample, g.

8. Report

8.1 The report shall include the following:

8.1.1 Lot and sample identification,

8.1.2 Grade and type of mica; and

8.1.3 Percent of undersized splittings.

9. Precision and Accuracy

9.1 No data are available at this time on the precision and accuracy of this method.

¹ This method is under the jurisdiction of ASTM Committee D-9 on Electrical Insulating Materials and is the direct responsibility of Subcommittee D09.09 on Mica Products.

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