



Designation: A 341/A341M – 9500

An American National Standard

Standard Test Method for Direct Current Magnetic Properties of Materials Using D-C Permeameters and the Ballistic Test Methods¹

This standard is issued under the fixed designation A 341/A341M; 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.

1. Scope

1.1 This test method provides dc permeameter tests for the basic magnetic properties of materials in the form of bars, rods, wire, or strip specimens which may be cut, machined, or ground from cast, compacted, sintered, forged, extruded, rolled, or other fabricated materials. It includes tests for determination of the normal induction under symmetrically cyclically magnetized (SCM) conditions and the hysteresis loop (B-H loop) taken under conditions of rapidly changing or steep wavefront reversals of the direct current magnetic field strength.

1.2 This test method shall be used in conjunction with Practice A 34/A 34M.

1.3 This test method covers a range of magnetic field strength in the specimen from about 0.05 Oe [4 A/m] up to above 5000 Oe [400 kA/M] through the use of several permeameters. The separate permeameters cover this test region in several overlapping ranges.

1.4 Normal induction and hysteresis properties may be determined over the flux density range from essentially zero to intrinsic saturation for most materials.

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