



## ASTM E 10

### Standard Test Method for Brinell Hardness of Metallic Materials

This test method covers the determination of the Brinell hardness of metallic materials by the Brinell indentation hardness principle. This standard provides the requirements for a Brinell testing machine and the procedures for performing Brinell hardness tests. This standard includes additional requirements in four annexes:

- Verification of Brinell Hardness Testing Machines
- Brinell Hardness Standardizing Machines
- Standardization of Brinell Hardness Indenters
- Standardization of Brinell Hardness Test Blocks

At the time the Brinell hardness test was developed, the force levels were specified in units of kilograms-force (kgf). Although this standard specifies the unit of force in the International System of Units (SI) as the Newton (N), because of the historical precedent and continued common usage of kgf units, force values in kgf units are provided for information and much of the discussion in this standard refers to forces in kgf units.

The Brinell hardness test is an indentation hardness test that can provide useful information about metallic materials. This information may correlate to tensile strength, wear resistance, ductility, or other physical characteristics of metallic materials, and may be useful in quality control and selection of materials. Brinell hardness tests are considered satisfactory for acceptance testing of commercial shipments, and have been used extensively in industry for this purpose. Brinell hardness testing at a specific location on a part may not represent the physical characteristics of the whole part or end product.

If you have any questions concerning this particular ASTM method, please feel free to give our office a call at (800) 334-5432 or email us your inquiry at [info@nhml.com](mailto:info@nhml.com).

(E10, E-10, E 10)

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