



ASTM A-247

Test Method for Evaluating the Microstructure of Graphite in Iron Castings

This test method covers the classification of graphite in cast irons in terms of type, distribution, and size. This test method is intended to be applicable for all iron-carbon alloys containing graphite particles, and may be applied to gray irons, malleable irons, and the ductile (nodular) irons. Characteristic features of graphite particles are designated by numerals and letters. Type, distribution, and size of observed graphite are compared with the idealized microstructures in the standard charts and rated accordingly as closely as possible to the equal or similar microstructures in the charts.

The comparison of observed graphite particles with the structures shown in the charts give only purely descriptive information on the type, distribution, and size of the graphite in the sample being evaluated. It does not indicate, except in a very broad way, the origin of the graphite, or the suitability of the iron-carbon alloy for a particular service.

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