

Summary on IS 9139:1979

This standard specifies the requirements for the malleable iron shot and grit for use as shot blasting machine abrasive in foundries.

Malleable iron shot shall be graded by the shot number, which is the **aperture size** of the retaining screen in **thousands of millimeters** and designated as **S-M**. Malleable iron grit shall be graded by the **grit number**, which is the aperture size of the retaining screen in **hundreds of millimeters** and designated as **G-M**.

Using an appropriate heat treatment procedure, a malleable iron shot and grit shall be produced by **malleabling white iron shot and grit**. The particle shape and size must meet standard requirements. When tested in accordance with the method specified, the material must have the **chemical composition** specified in the standard. The particle's average **hardness** should be between **200 and 300 HV**. Malleable iron shot and grit must have a **microstructure of temper carbon nodules in a matrix that is predominantly paralytic or tempered martensitic**.

TESTS

Tests shall be carried out in accordance with method specified.

Size and Chemical Test

Hardness Test

Microstructure Characteristics Test

LABELLING AND MARKING:

Each container must be labelled with the manufacturer's name or trade mark and the size and material type. The **ISI mark** must be applied to the material, provided that the material so marked meets all of the specification's requirements.