

Ductile Iron grade 60-40-18

Categories: [Metal](#); [Ferrous Metal](#); [Cast Iron](#); [Alloy Cast Iron](#); [Ductile Iron](#)

Material Notes: Carbon represents the total carbon in the above composition. Cerium is an optional constituent in ductile iron. Most ductile irons are specified based on mechanical properties and have loosely defined compositions. For example, 60-40-18 ductile iron is specified to have a minimum tensile strength of 60 ksi (414 MPa), a yield strength of 40 ksi (276 MPa) and an elongation of 18%. Ferritic, annealed. Applications include pressure-containing parts for use at elevated temperatures, valves and fittings for steam and chemical plant equipment.

Key Words: UNS F32800, ASTM A395-76, ASME SA395, ferritic, pressure parts

Vendors: [Click here to view all available suppliers for this material.](#)

Please [click here](#) if you are a supplier and would like information on how to add your listing to this material.

Mechanical Properties	Metric	English	Comments
Hardness, Brinell	143 - 187	143 - 187	
Hardness, Knoop	183	183	Converted from Brinell hardness.
Hardness, Vickers	171	171	Converted from Brinell hardness.
Tensile Strength, Ultimate	>= 414 MPa	>= 60000 psi	
Tensile Strength, Yield	>= 276 MPa	>= 40000 psi	
Elongation at Break	18.0 %	18.0 %	In 50 mm.

Material Components Properties	Metric	English	Comments
Carbon, C	>= 3.0 %	>= 3.0 %	
Iron, Fe	94.0 %	94.0 %	
Phosphorous, P	<= 0.080 %	<= 0.080 %	
Silicon, Si	<= 2.50 %	<= 2.50 %	

Some of the values displayed above may have been converted from their original units and/or rounded in order to display the information in a consistent format. Users requiring more precise data for scientific or engineering calculations can click on the property value to see the original value as well as raw conversions to equivalent units. We advise that you only use the original value or one of its raw conversions in your calculations to minimize rounding error. We also ask that you refer to MatWeb's disclaimer and terms of use regarding this information. [Click here](#) to view all the property values for this datasheet as they were originally entered into MatWeb.