ASTM A536 100-70-03, EN-GJS-700-2, GGG70, Ductile Iron, SG Iron

Chemical Composition, Mechanical and Physical Properties

ASTM A536 100-70-03 (EN-GJS-700-2, GGG70) is a type of high tensile strength ductile cast material grade. It has comparatively high tensile strength, and good abrasive resistance. So, this cast iron grade could produce mechanical parts with high duty.

Our Dandong foundry has been producing this material grade for many years, and herein, we share its chemical composition and physical properties.

1. Equivalent Material Grades of Ductile Iron ASTM A536 100-70-03

The equivalent grades of ASTM A536 100-70-03 are EN-GJS-700-2, GGG70, ISO 700-2, QT7 FGE70-2, FNG70-2, SJK-700. Although some required elongation 3%, and some required 2%, they could be taken as the equivalent grades.

2. Chemical Composition of Ductile Iron ASTM A536 100-70-03

C: 3.60-3.90, Si: 1.70-1.90, Mn: 0.30-0.50, P: < 0.06, S: < 0.03, Mg: 0.035-0.050. However, standard of inspection, unless there is special requirement. All foundries could adjust their chemical composition to meet the mechanical requirements of standards.

3. Mechanical & Physical Properties of Ductile Iron ASTM A536 100-70-03

Tensile Strength ≥ 700 MPa. Yield Strength ≥ 420 MPa. Elongation ≥ 3%.

As for equivalent grades EN-GJS-700-2, GGG70, ISO 700-2, QT700-2, FCD700, GS700-2, FGE70-2, FNG70-2, SJK-700, their elongation ≥ 3%.

There is no strict stipulation to the hardness of ASTM A536 100-70-03, however, normal hardness (Brinell Hardness) without heat treatment.

4. Main Application of Ductile Iron ASTM A536 100-70-03

Because of the high tensile strength, hardness and good abrasive resistance, this grade of ductile iron could produce crank shaft, axle, camshaft, main shaft of milling machine and lathe machine, high duty manhole covers.
Gray Iron Castings | Ductile Iron Castings | Cast Steel Castings | Green Sand Iron Castings
Automatic Molding Castings | Shell Molding Iron Castings | Sand Mold Steel Castings | Lost
Boiler Metal Parts | Construction Machinery Parts | Agricultural Machinery Parts | Pump & Valve
Manholes | Other Iron & Steel Castings | Prices Per Pound, Kg and Ton | Cast Iron Price Calculator