

# DUCTILE IRON 80D

## BASIC SPECIFICATION

GIW 80D is pearlitic-ferritic ductile iron following ASTM Standard A 536-84 Grade 80-55-06 SAE J434C.

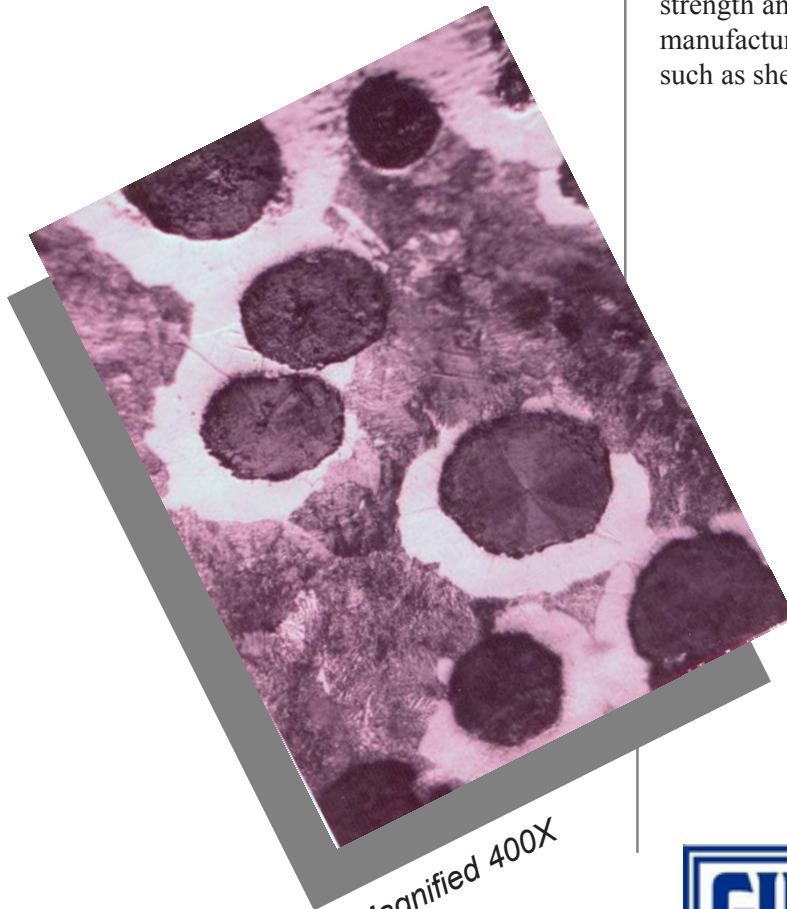
## MECHANICAL PROPERTIES

Tensile Strength.....80.000 psi  
Yield Strength.....55.000 psi  
Elongation.....6 percent  
Hardness .....187 HBN  
(per ASTM A536)

\*Properties apply to 3 inch sections or less.

## MICROSTRUCTURE

GIW 80D is a ductile cast iron. Its micro structure consists of spherical graphite in a pearlitic-ferritic matrix.



Magnified 400X

## WELDING PROCEDURE

1. Preheat 150° to 200° Fahrenheit.
2. Use 55 percent nickel, 45 percent iron electrode.
3. Peen each bead while it is red.
4. After completing the weld, the repaired should be covered with an insulating blanket to allow slow cooling.

This procedure is taken from Volume 6 of the American Society for Metals handbook, "Welding, Brazing and Soldering." It is intended for cosmetic welding and minor repair. GIW Industries uses this procedure for cosmetic welding, but does not recommend it for repairing cast parts made of this material.

If you use this welding procedure for repairing castings it will be at your own risk.

## APPLICATION

GIW 80D is a ductile iron material with superior strength and good ductility. It is well suited for the manufacturer of pump parts and other type castings, such as shells, impellers, plates and end hooks.



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