Materials

HSI 2000 Ductile Iron *(Standard)*

This will be the supplied material unless otherwise specified. Our most common ring material. Approximately 90% of all our seal rings are produced from this material. This material is American made making it readily available.

Microstructure:

A: Graphite

The microstructure of this material will be essentially ferritic with 90% minimum Type 1 and Type 2 graphite.

B: Matrix

The matrix will contain some pearlite and less than 5% well dispersed carbides. Pearlite will range up to 25% In rings over 2" in diameter.

Chemical Composition:

Typical analysis will be:

C 3.6 - 3.9

Si 2.3 - 2.8

Mn 0.01 - 0.4

Others - As required to produce the microstructure and physical properties.

Physical Properties:

The following properties are in accordance with ASTM A-536. These properties were determined using a 1.22" diameter test bar and taken at mid radius of the as cast bar.

A. Tensile Strength—65,000 PSI

B. Yield Strength—45,000 PSI

C. Elongation—12%

D. Hardness—131—220 Brinell

Rings can be made from other materials to better suit your particular application. These are some commonly used materials but others have been used in the past:

Cast Iron

Class 30/40.

Bronze

C863, C932, C954, etc. with C932 being the most common choice for seal rings. These materials have mild corrosive properties for fluids such as steam, salt water and synthetic fluids that might attack iron and steel.

Ni-Resist

Type I or II. Offers properties that resist corrosion and wear. Can withstand moderate or high temperatures.

Steels and Super Alloys

Steels for higher strengths and Super alloys that maintain physical properties at extremely high temperatures.

Plastics or Teflons

A variety of compounds to suit your application.

www.hydra-seal.com (262) 252-4401 (Phone) (877) 252-4401 (Toll Free) Info@hydra-seal.com

Hydra-Seal Inc, W153 N5999 Bobolink Avenue, Menomonee Falls, WI 53051