

Titanium/Precision 440A/430

Material Characteristics

This highly inert material is lightweight, offers exceptional anti-corrosive properties, operates effectively in high temperature applications, provides a high level of tension/compression strength, and has expansion characteristics similar to steel. Titanium is used extensively in aerospace applications as well as in the chemical, food processing, and medical implant industries.

Precision 440A Stainless Steel Hollow Balls

The one-inch hollow ball is utilized in weight sensitive applications requiring a combination of high surface hardness with material fracture toughness. Minimum crush strength is 6,000 lbs. Typical weight is 23 grams as compared to 65 grams for a solid ball, a reduction in weight of over 60%. Available in Grade 1000 tolerance or higher. Typical applications include aircraft ball transfer units, liquid float systems, and custom ball valves.

Hardness

440A stainless steel hardness as measured on parallel flats is Rockwell "C" 52-60.

Material Analysis – (Type 440A Stainless Steel)

Carbon	0.60 to 0.75%
Manganese	Maximum of 1.00%
Phosphorus	Maximum of 0.040%
Sulphur	Maximum of 0.030%
Silicon	Maximum of 1.00%
Chromium	16.00 to 18.00%
Molybdenum	Maximum of 0.75%

430 Stainless Steel Balls

Type 430 stainless steel is an economical stainless material that provides corrosion resistance at low cost. Typical applications for this product include cosmetic mixing media, decorative trim, and light duty ball valves.

Hardness

430 stainless steel is a non-hardenable stainless steel.

Material Analysis – (Type 430 Stainless Steel)

Carbon	Maximum of 0.12%
Manganese	Maximum of 1.00%
Phosphorus	Maximum of 0.040%
Sulphur	Maximum of 0.030%
Silicon	Maximum of 1.00%
Chromium	14.00 to 18.00%