

## MATERIALS and FINISHES

**Zurn Cast Iron** conforms to ASTM Specification for Gray Iron Castings A 48-83, Class 25. It is produced utilizing the latest equipment and newest developed foundry techniques. Zurn cast iron castings are characterized by a high degree of strength, corrosion-resistance, workmanship, and finish.

**Zurn Duresist** is a ductile iron complying with ASTM Specification A 536-84, Grade 60-45-10. Its physical properties make it ideal for grates and drain components that are subjected to severe and heavy duty service. Its chemical characteristics make possible a degree of corrosion-resistance far superior to that of cast iron. Zurn Duresist exhibits remarkable stress qualities, possessing a yield strength in the same range as that of cast carbon steel, while its ability to absorb the shock loading of traffic areas is unequalled, making its use ideal for all areas where extra heavy duty service is a requirement – whether indoors or outdoors – in chemical and metal processing plants or other industrial applications.

**“Zurn Dura Coat”** is a specially formulated paint designed to resist cracking and chipping. Dura Coat is a latex based coating developed to be used with cast iron substrate.

**Zurn Galvanized Cast Iron** is a process of applying heavy zinc coating to a thoroughly cleaned iron casting. This coating contains 95% zinc. Zurn galvanizing can be supplied on all cast iron parts. It increases longevity and is recommended wherever the discoloration caused by oxidation of cast iron is objectionable. Galvanize should be used in coastal and industrial areas where corrosive atmosphere may be encountered. Zurn galvanizing meets and exceeds Federal Specification MIL-P-21035, MIL-P-26915A, MIL-P-26433, and MIL-C-10578 (Type II). It also meets ASTM A239-89 and is listed by Underwriters Laboratories, Inc. (U.L.)

**Cadmium Plated Cast Iron** is a process of applying a heavy cadmium coating to a thoroughly cleaned iron casting. This coating contains 95% cadmium in a cold applied process. Cadmium plating can be supplied on all cast iron parts. It increases longevity and is recommended wherever the discoloration caused by oxidation of cast iron is objectionable.

### Properties of Basic Ductile Versus Cast Iron

Metal	Cast Iron	Ductile Iron
Specification	Class 25	60-45-10
Tensile Strength (PSI)	25/30,000	60/80,000
Yield Strength (PSI)	NIL	45/60,000
Elongation	NIL	10% to 25%
Modules of Elasticity	16 x 10	24 x 10

**Zurn Bronze** is a semi-red brass conforming to ASTM Specification for Copper Alloy Sand Casting B 584-90, Copper Alloy No. 844. The exposed surface is normally supplied possessing a satin sheen texture which allows it to blend unobtrusively with surrounding finishes. When the application requires, Zurn Bronze can be polished to a high gloss.

**Zurn Nickel Bronze** is a unique material that is ideally suited to traffic-bearing grates and strainers in finished floor areas. It affords the combined advantage of greater strength, better appearance, and longer service life at the same price as chrome plated brass. Superior ductility and shock resistance are the result of a copper nickel alloy (Copper Alloy 997) having a wearing surface similar in appearance to satin chrome plate; however, because it does not have a plated surface it cannot chip, peel, crack, or wear off. It is highly resistant to corrosion; however, the process of oxidation will naturally occur over time with most metals. Methods have been developed to prevent, preserve, and restore metals affected by oxidation.

**Chrome Plated Bronze** is ideal for installation in walls, gutters, and other areas where a bright decorative finish is desired, and is not subject to the abrasive action of foot and other traffic. It is not recommended for installations where the abrasion will eventually wear through and cause peeling. It should always be specified for swimming pool fittings due to its high resistance to the halogens (chlorine, etc.) encountered in swimming pool sanitation.

**Aluminum** supplied is casting grade 319. This is an alloy containing both silicon and copper. It is a solid cast metal in a pleasing light gray color. The light weight, coupled with its exceptional strength and corrosion resistance, makes it ideal for drain components such as sediment buckets and strainers. When used with acid-resisting porcelain enamel coated drains, the possibility of chipping is minimized.

**Zurn Stainless Steel** castings are normally produced in Type CF8 (304) which is an 18-8 Austenitic Stainless possessing excellent corrosion resistant qualities. For some applications where conditions demand, Type CF8M (316) stainless steel can be supplied. Items formed from stainless steel sheet and other stainless steel products are regularly furnished in Type 304 with 316 as an optional material.

**A.R.C.** Acid Resisting Epoxy Coating is a baked-on powder coating, which produces a smooth, hard, high gloss finish. This epoxy based coating offers high impact resistance and excellent life expectancy in all drainage applications. Zurn A.R.C. coating conforms to the requirements of F.D.A. (Food and Drug Administration) Regulation 21-CFR5 117.1360.

**A.R.E.** Acid Resisting Porcelain Enamel is a substantially vitreous or glassy inorganic coating bonded to metal by fusion at a high temperature above 800°F. This coating offers excellent acid, abrasion, and wear resistance. The coating is extremely hard and is the ultimate for sanitation in drainage applications. Zurn A.R.E. coating conforms to the requirements of F.D.A. (Food and Drug Administration) Regulation 21-CFR5 117.1360.