PRIMEGUARD MAX®
SEASIDE APPLICATIONS

PrimeGuard MAX®

Why 316 Stainless Steel?

Environment
When building near salt water 316 stainless steel is the best performing alloy in terms of resisting corrosion. It is known as Marine Grade and has been used for years in wooden boat construction and repair. 316 differs from 304 and 305 stainless steels as shown below:

Proportion of Elements in Stainless Steel, by Grade:

	304	305	316
Chromium	18–20%	17–19%	16–18%
Nickel	8–10.5%	10.5–13%	10–14%
Carbon	0.08% max	0.12% max	0.08% max
Copper	—	—	—
Molybdenum	—	—	2–3%
Manganese	< 2%	< 2%	—
Iron	Balance	Balance	Balance

All types contain a combination of nickel and chromium; the chromium creates an invisible passive film that protects the fastener. The addition of molybdenum increases the corrosion resistance and is especially effective when exposed to salt water. All resist corrosion, but 316 stainless steel is the most corrosion resistant.

It is important to understand that "corrosion resistant" is not "corrosion proof." Note that over 65% of the nail or screw in 316 stainless steel is iron, and when iron is exposed to salt water, the possibility exists that rust can occur. In normal conditions—siding, decking, roofing and trim projects in seaside applications—316 stainless steel will function properly. In cases where oxygen flow is reduced or prohibited, and/or where the fastener is underwater for extended periods, red rust can result. It will not corrode to the point of fastener failure (completely rusting away), but will show surface conditions such as red rust that will reflect the fastener reacting to surrounding conditions.

Consider when this happens how much worse the situation would be if a non-stainless steel fastener was used.

Application
When installing siding, decking, roofing and trim in, ALWAYS consider the cost of the primary material, the expected life and the location. If the material is designed to stand the test of time and the customer expects long term performance, use a fastener that is designed to match the life expectancy.

Primary Building Product Recommendations
Review the installation guidelines! Many companies recommend stainless steel when installing their products. Seaside applications invite the use of 316 Stainless Steel.

Industry Association Recommendations
It is important to note that over the last 20 years the WRCLA, CRA and Southern Pine Council have modified their recommendations as they have learned firsthand what happens if a builder installs a project with fasteners not designed to meet the corrosive elements found in coastal conditions, or to resist the corrosive force of tannins (in cedar and redwood) or copper (in pressure treated lumber). Today they all recommend stainless steel. In the case of the Cedar Shake & Shingle Bureau the recommendation is:

> Each Certi-label® shake or shingle shall be applied with two fasteners. Nails ***must be*** stainless steel **Type** 316 in locations within fifteen (15) miles of salt water. For locations outside the salt water zone - nails ***must be*** stainless steel, **Type** 304, **Type** 316, or hot-dipped galvanized with a coating weight of 2 ASTM A 153 Class D (1.0 oz/ft). Stainless steel nails offer the highest degree of corrosion resistance.
>
> - *Roof Manual*, pg. 12 (11/20/2013)
> Cedar Shake & Shingle Bureau, www.cedarbureau.org

316 Stainless steel is the BEST OPTION in coastal applications.

Fasten it once, Fasten it with MAX.

PRIMESOURCE BUILDING PRODUCTS, INC.

800-676-7777
www.grip-rite.com
www.primesourcebp.com

PGMSEA
01/2014