

What is the difference between Corten Steel & Patina Steel?

As you can probably tell from the images of both materials these look very similar.

Essentially, Corten Steel is a Brand in its own right and a Patented group of Steel Alloys designed to weather and produce a long lasting maintenance free Steel. Due to it being a Brand and Patented this both demands a premium on the raw material, but does actually produce the longest lasting form of weathering Steel on the market.

Patina Steel is a fairly close match in terms of Alloy which is more cost effective as it is A) Not branded & B) far more widely available due to its popularity in general construction.

The results are a very similar (practically indistinguishable to the untrained eye) finish that weathers in the same way colour wise. Both materials will weather into a redish/orangy shade that will eventually transition into more orangy/browns over the life span of the material. As Patina Steel has around half the life span of Corten Steel this transition will happen quicker.

This is what forms biggest difference between the 2 materials. A) is the lifespan of planters in Patina Steel is around half that of Corten Steel & B) Patina Steel is a cheaper alternative as a result of a cheaper non branded material

However, for use for planters in a lot of commercial and the vast majority of residential applications the lifespan of Patina Steel is more than enough and simply provides a cheaper alternative to the more expensive Corten equivalent.

How the Weathering Process works & the differences between Corten & Patina Steel

It is the weathering process itself that gives these alloys their unique appearance. Weathering is atmospheric corrosion – which is the effect of being out in all weathers.

The chemical composition of Corten Steel does actually increase the resulting steel's resistance to atmospheric corrosion.

With Corten Steel, instead of corroding/rusting, the steel weathers once placed outdoors & surface oxidation occurs. As this surface layer of oxidation develops it creates its own protective film.

Although this layer resembles 'rust' it is actually a 'controlled' corrosion which is far more stable, forming a protective rather than damaging layer across the metal.

With Patina Steel being a different Alloy, the surface rust does not quite offer the same protection as Corten Steel which is why the life span of this material is not as long.

As the surface layer develops over time, the appearance of Corten & Patina Steel is enhanced as a result of weathering. With Corten Steel the durability is also enhanced as the surface layer develops as this is directly to do with its chemical composition.

As a result, every product made from Corten & Patina Steel develops a very unique, rustic looking finish.

What is Corten Steel?

Corten steel is also commonly known as weathering steel. These particular alloys are a brand in their own right which demands a premium and is sometimes listed as COR-TEN its branded trademark.

Regardless of what name is used, this particular group of alloys all have the same specific properties.

The trademark name is split as it is relevant to its properties;

Cor – refers to the metal's property of corrosion resistance.

Ten – denotes the metal's tensile strength.

It was first invented to be used in civil engineering projects such as structures and bridges where there is no on cost of either having to Zinc Galvanise the steel or paint it to protect it.

What is Patina Steel?

Patina Steel is essentially a similar but lower grade alloy that carries no Brand or Patent resulting in a cheaper overall material. Life span is around half that of Corten Steel but is ideal for lots of applications including planters where its life span is adequate to last more than long enough before you would want to revamp the garden anyway!! Therefore provides a cheaper alternative to Genuine Corten Steel.