

## OVERVIEW

CT5314 is an iron based alloy with a very complex chemistry. This material forms an amorphous structure due to rapid solidification, and that structure is further enhanced as the result of frictional forces applied to the surface. Once these amorphous phases form, the material experiences increased surface hardness and a lower coefficient of friction. The material is an excellent material to use for resistance to particle erosion at fairly elevated temperatures.

## TYPICAL PROPERTIES

<b>Nominal Composition:</b>	Iron based complex alloy
<b>Bond Strength:</b>	8,000 – 10,000 psi
<b>Coating Porosity:</b>	5 to 10%
<b>Coating Hardness:</b>	Vickers 1,200-1,400
<b>As-sprayed Surface Roughness:</b>	600 Ra

## FOR THE FOLLOWING APPLICATIONS

CT5314 has been used in many boiler tube applications where erosion resistance, heat resistance and thermal shock resistance is important. CT5314 has also been used in pump applications in the petrochemical industry. It is resistant to salt water, oxidizing acids and caustic solutions. It retains hardness up to 1600° F.

## FINISHING

CT5314 may be finished by grinding. They may be ground with green silicon carbide wheels or diamond wheels.

Finishes of 2-4 Ra are possible by grinding. This coating may also be superfinished to a 1 Ra finish.

## SPECIFICATIONS

CT5314 meets the following specifications:

Internal CTS specifications only