MEARS Technology Bulletin

Conforma Clad X2[™] Dual Protection for Severe Corrosion & Abrasion



X2 cladding uses twin layers of Stellite[™] and tungsten carbide, realizing the benefits of both materials. This dual-protection system is designed to protect critical components that are exposed to severe erosion/abrasion and corrosive fluids at the same time.

True metallurgical bond between all layers:

 Provides unsurpassed strength, preventing chipping, flaking, and spalling.

X2 cladding can be applied to:

- Complex geometries and challenging shapes.
- Nearly all steel/stainless steel components.

Top Layer -

Tungsten CarbideSuperior Abrasion Protection

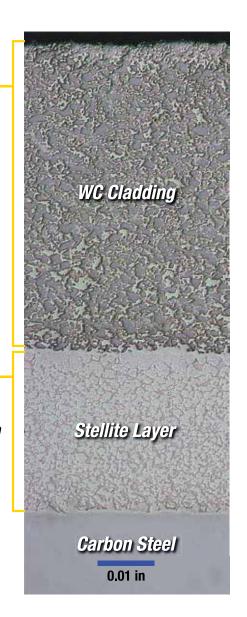
The tungsten carbide top layer offers the same wear protection on which Conforma Clad™ built its reputation.

Bottom Layer

StelliteTM

Superior Corrosion Protection

The Stellite bottom layer eliminates any access of corrosive fluids to the base material.



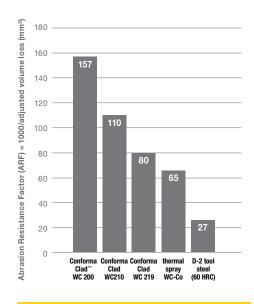


Top Layer

Abrasion/Erosion Protection

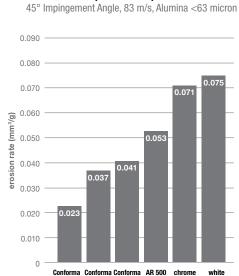
- Range of tungsten carbide grades available to suit your environment.
- A "pure" cladding with consistent wear properties from surface to bond line. The predictable, linear wear rate can be used to forecast component life.
- Metallurgical bond no flaking or spalling.
- Significant performance advantage over competing wear materials.

Dry Sand Abrasion Test (ASTM G65)



Up To 2.4x BetterAbrasion Resistance vs. Thermal Spray

Erosion Test (ASTM G76)



Up To 3x BetterErosion Resistance vs. Chrome Carbide Weld Overlay

carbide

cast

Clad

WC 210 WC 219

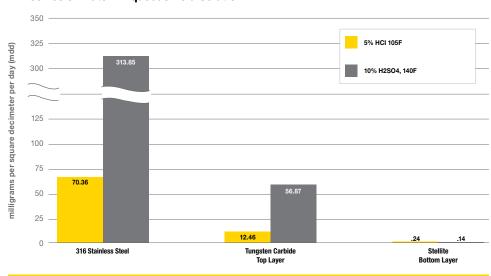
WC 200

Bottom Layer

Corrosion Protection

- Cobalt based Stellite[™] alloy has been successfully used for decades to solve challenging industrial wear and corrosion problems.
- As the original maker of Stellite alloys, we are now able to incorporate the proven corrosion resistance benefits of this material in our claddings.
- The Stellite layer encapsulates the base material, forming a protective barrier against corrosive fluids.

Corrosion Rate in Aqueous Acid Solution



Significant Corrosion Resistance Benefits Stellite vs. 316SS

CONTACT US

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