



Industry Uses:



- Aerospace
- Oil & Gas
- Mining
- Petrochemical
- Power Generation
- Nuclear

Industry Specifications:

- AMS 2447-3

Coating Thickness:

Over 0.075"

Coating Finish:

As sprayed: 175 μ - in AA
Ground: Less than 10 μ - in AA

Composition Weight %

75% Chromium Carbide;
20% Nickel;
5% Chromium

Bond Strength:

Over 10,000 PSI (epoxy failure
at 0.020" coating thickness)

Hardness:

Superficial: 87-89 R_{15N}
(53-57 R_c converted);
Micro: 900 - 1100 DPH₃₀₀

Microstructure:

Porosity: less than 1%
Oxides: less than 1%

TMCC25 Chromium Carbide: 25% NiCr

Techmetals provides a Chromium Carbide (25% NiCr) thermal spray useful in a variety of applications. The hard, dense coating is perfect for components like valves, pump shafts and turbine blades due to its durability and corrosion resistance. Our **TMCC25** solution is often used as a hard chrome replacement, resisting heat and oxidation (temperatures up to 1500° F), making it also an option for some nuclear applications as well, such as fuel rods.

Benefits of TMCC25 Chromium Carbide (25% NiCr):

- Hard, dense coating with increased corrosion resistance
- Well bonded, suited for hard surfacing, fretting or abrasive wear
- Resistant to corrosion, heat and oxidation (temperatures up to 1500° F).
At these elevated temperatures, traditional hard-chrome plating and Tungsten Carbide coatings often fail due to micro-cracking and loss of hardness.

