



Industry Uses:



- Aerospace
- Manufacturing
- Oil & Gas
- Power Generation
- Automotive

Industry Specifications:

- AMS 2447-8

Coating Thickness:

0.050" (2mm) maximum

Coating Finish:

As sprayed: 130 μ - in Ra

Ground: Less than 10 μ - in Ra

Composition Weight %

88% Tungsten Carbide;

12% Cobalt

Bond Strength:

10,000 PSI (epoxy failure at

0.015" coating thickness)

Hardness:

Superficial: 92.5 R_{15N}

Macro: 66 R_c

Micro: 1400 DPH₃₀₀

Microstructure:

Porosity: less than 1%

Oxides: less than 2%

TMTC12 Tungsten Carbide: 12% Cobalt

TMTC12 is Techmetals' Tungsten Carbide (12% Cobalt) thermal spray coating used to help protect critical parts from harsh operational environments. The hard, dense coating helps parts prevent abrasion, erosion and impingement, while also reducing sliding and fretting wear. This rugged solution is a natural fit for applications such as airplane blades, takeoff gear and engine parts – as well as oil field apparatus, brick molds, draft fans, extrusion dies, hydroelectric parts and many others.

Benefits of TMTC12 Tungsten Carbide (12% Cobalt):

- Hard, dense coating with increased sliding wear resistance
- Improves wear from impingement, erosion, fretting and abrasion on critical parts
- Often used as hard chrome replacement due to its toughness
- Specifically designed to combat severe abrasive and erosive wear environments

