

Bulletin



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File: 1.9.2.2CH-1241F
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Original Issue

COATING PROPERTIES

TAFE 1241F COBALT - NICKEL - CHROMIUM - ALUMINUM - YTTRIUM ALLOY

Spray Conditions:

Excellent coatings of TAFE 1241F can be obtained at spray rates from 2 to over 15 lb/hr (0.9 -6.8 kg/hr) with the JP-5000. For typical spray parameter see bulletin 1.9.2.2SH-1241F.

Spray Rate

10 lb/hr (4.5 kg/hr)

Coverage 148.6 ft²/hr/0.001" (0.351 m²/hr/mm)

Powder Required 0.068 lb/ft² x mil (13.13 kg/m² x mm)

Finishing Procedures:

Use good quality, precision grinding equipment with coolant.

Typical setup:

Silicon carbide wheel (Green) 150 grit - Rough

Wheel Speed: 5500-6500 sfpm

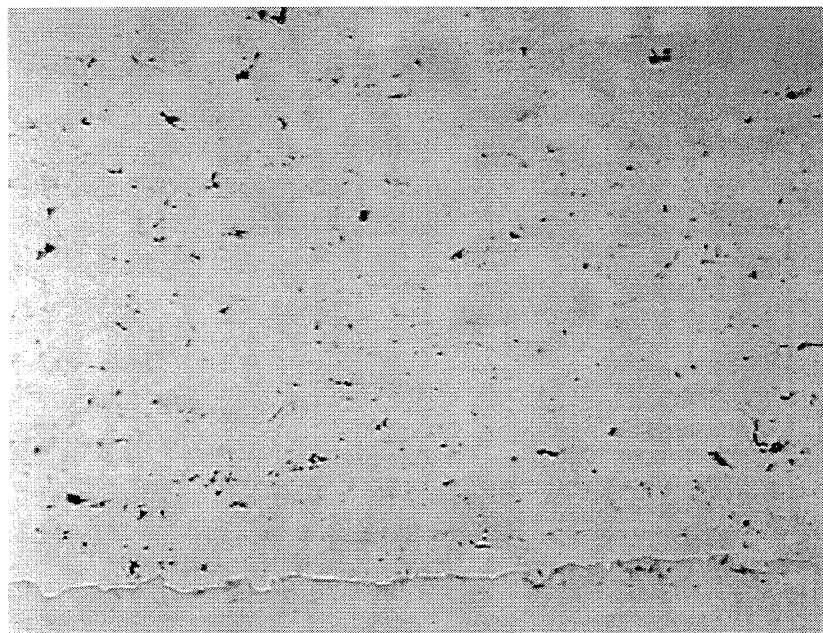
Infeed: 0.0005-0.001" per pass

Feedrate: 70-100 sfpm (cylindrical)

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Coatings

Thickness (maximum)		0.100" (2.5 mm)
Surface Finish -	As Sprayed	175-200 μ -in AA
	Ground	Less than 10 μ -in AA
	Superfinish	Less than 2 μ -in
Tensile Bond Strength		Usually heat treated after spraying
Hardness -	Superficial	80 R _{15N}
	Macro	40 R _C
	Micro	490 DPH ₃₀₀
Microstructure -	Porosity	Less than 1.0%
	Oxide Content	Insignificant



TFAA 1241F Co-Ni-Cr-Al-Y Alloy Magnification: 200 X
Sprayed at 15 lb/hr Etchant: None (As Polished)

The coating data provided herein was generated by skilled operators using equipment in good working condition. The information is believed to be accurate and reliable; however, thermal spray results may vary. TFAA is committed to a continuing program of product improvement. Product specifications are subject to change without notice. TFAA warrants that the equipment and powder is furnished free of defects in material and workmanship. No other warranty is expressed or implied.

Hazards:

Observe normal spraying practices. Respiratory and hearing protection is advised. For general guidelines see AWS Publication C2.1-73, and AWS TSS-85. Thermal spraying is a safe process when performed in accordance with proper safety measures.

For further information on HVOF coatings, equipment and supplies, as well as other thermal spray processes and custom automated systems, contact:

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