

File: 1.9.2.2CH-1242B  
Issue: L11029  
Original Issue

## COATING PROPERTIES

TAFAl 1242B Nickel - Cobalt - Chromium - Aluminum - Tantalum - Yttrium Alloy

### Spray Conditions:

Excellent coatings of TAFAl 1242B 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-1241B.

#### Spray Rate

	10 lb/hr (4.5 kg/hr)
Coverage	95.5 ft <sup>2</sup> /hr/0.001" (0.225 m <sup>2</sup> /hr/mm)
Powder Required	0.105 lb/ft <sup>2</sup> x mil (20.4 kg/m <sup>2</sup> x mm)

### Finishing Procedures:

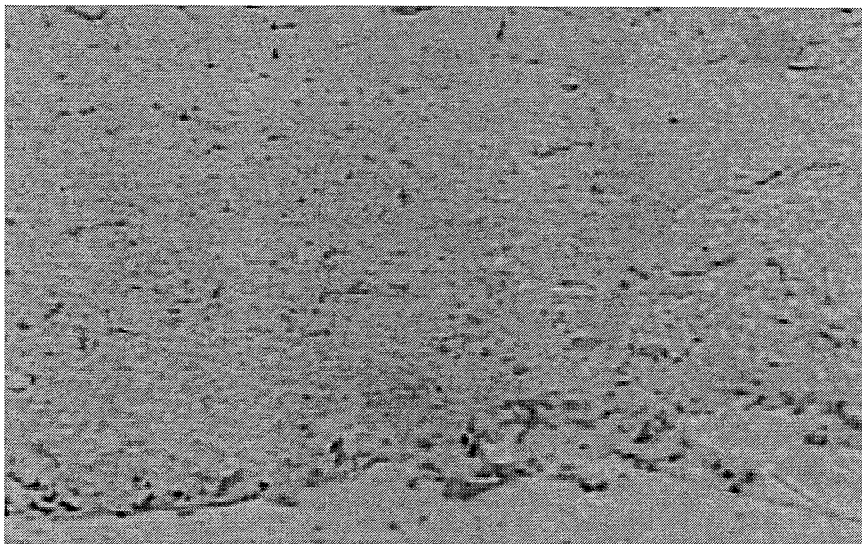
Use good quality, precision grinding equipment with coolant.

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)

Coatings

Thickness (maximum)		0.100" (2.5 mm)
Surface Finish -	As Sprayed	175-200 $\mu$ -in AA
	Ground	Less than 10 $\mu$ -in AA
	Superfinish	Less than 2 $\mu$ -in
Tensile Bond Strength		usually heat treated after spraying
Hardness -	Superficial	91 R <sub>15N</sub>
	Macro	55 R <sub>C</sub>
	Micro	740 DPH <sub>300</sub>
Microstructure -	Porosity	Less than 3%
	Oxide Content	Insignificant



**TAFE 1242B Ni-Co-Cr-Al-Ta-Y Alloy Magnification: 200 X**  
**Sprayed at 10 lb/hr Etchant: None (As Polished)**

**The information provided herein is believed to be accurate and reliable; however, results may vary with workpiece preparation and operator technique. TAFE is committed to a continuing program of product improvement. Product specifications are subject to change without notice. TAFE warrants only that the powders are 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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