

## Technical Data

File: 1.9.2.2CH-1375VM  
Issue: 010516  
Supersedes: M10606

### COATING PROPERTIES

TAFE 1375VM CHROMIUM CARBIDE - 25% NICHROME

#### Spray Conditions:

Excellent coatings of TAFE 1375VM can be obtained at spray rates from 2 to over 10 lb/hr with the JP-5000. For typical starting conditions see bulletin 1.9.2.2SH-1375VM.

	<u>Spray Rate</u>
	10 lb/hr (4.5 kg/hr)
Coverage	115 ft <sup>2</sup> /hr/0.001" (0.27 m <sup>2</sup> /hr/mm)
Powder Required	0.09 lb/ft <sup>2</sup> -0.001" (17.0 kg/m <sup>2</sup> -mm)

#### Finishing Procedures:

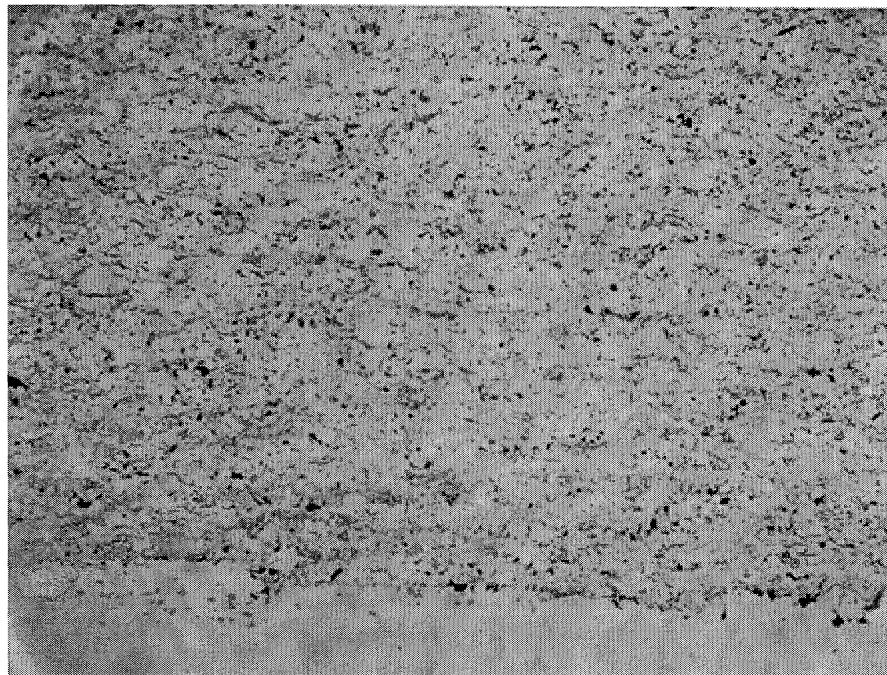
Use good quality, precision grinding equipment with coolant.

Typical setup:

Silicon Carbide	150 grit	Rough
Silicon Carbide	400 grit	Finish
Wheel Speed:	5500 sfpm	
Infeed:	0.0005" per pass	
Feedrate:	400 sfpm (cylindrical)	

**Coatings:**

Thickness (maximum)		Over 0.125" (3.2 mm)
Finish -	As Sprayed Ground	175 $\mu$ -in AA Less than 10 $\mu$ -in AA
Bond Strength		Over 10,000 psi (Epoxy failure) at 0.020" Coating Thickness
Hardness -	Superficial Micro	87-89 R <sub>15N</sub> (53-57 R <sub>c</sub> converted) 1000 - 1100 DPH <sub>300</sub>
Microstructure -	Porosity Oxides	Less than 2% Less than 3%



TAFE 1375VM CrC - 25 NiCr  
As Sprayed at 10 lbs/hr

Magnification: 200 X  
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 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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