

File: 1.9.2.2CH-1277F
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COATING PROPERTIES

TAFE 1277F Nickel - Chromium - Aluminum - Molybdenum Alloy

Spray Conditions:

Excellent coatings of TAFE 1277F can be obtained at spray rates from 2 to over 15 lb/hr with the JP-5000. For typical starting conditions see bulletin 1.9.2.2SH-1277F.

	<u>Spray Rate</u>	
	<u>10 lb/hr (4.5 kg/hr)</u>	<u>15 lb/hr (6.8 kg/hr)</u>
Coverage	130 ft ² /hr/0.001" 0.3 m ² /hr/mm	184 ft ² /hr/0.001" 0.4 m ² /hr/mm
Powder Required	0.08 lb/ft ² - 0.001" (15.0 kg/m ² - mm)	0.08 lb/ft ² - 0.001" (15.9 kg/m ² - mm)

Finishing Procedures:

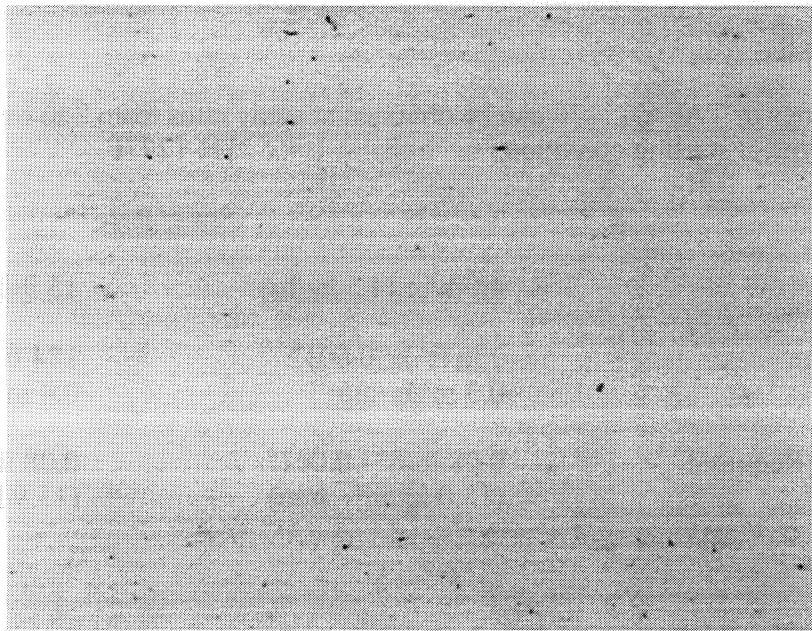
Coatings of 1277F are readily machined with carbide tools. Light cuts and high work speeds produce the best finishes.

Coatings of 1277F can also be ground to a very smooth finish.

Wheel:	60 grit Silicon Carbide
Wheel Speed:	5500-6500 sfpm
Traverse/pass/rev:	0.080-0.170"
Infeed/pass/rev:	0.0004 - 0.0008"

Coating Properties:

Thickness (maximum)	Over 0.200" (5.1 mm)
Finish - As Sprayed	200 μ -in AA
Machined	100 μ -in AA
Ground	10 μ -in AA
Polished	3 μ -in AA
Bond Strength	Over 7,000 psi
Hardness - Superficial	83 R _{15N}
Macro	45 R _C
Micro	590 DPH _{300g}
Microstructure - Porosity	Less than 1%
Oxides	Less than 1%



Tafa 1277F Ni-Cr-Al-Mo Coating Magnification: 200 X
As Sprayed at 12 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. Tafa is committed to a continuing program of product improvement. Product specifications are subject to change without notice. Tafa 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:

Tafa Incorporated
 146 Pembroke Road, Concord, NH 03301
 Phone (603) 224-9585
 Fax (603) 225-4342