

Bulletin

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NI-202-3 / 1278F

File: 1.9.2.2CH-1278F
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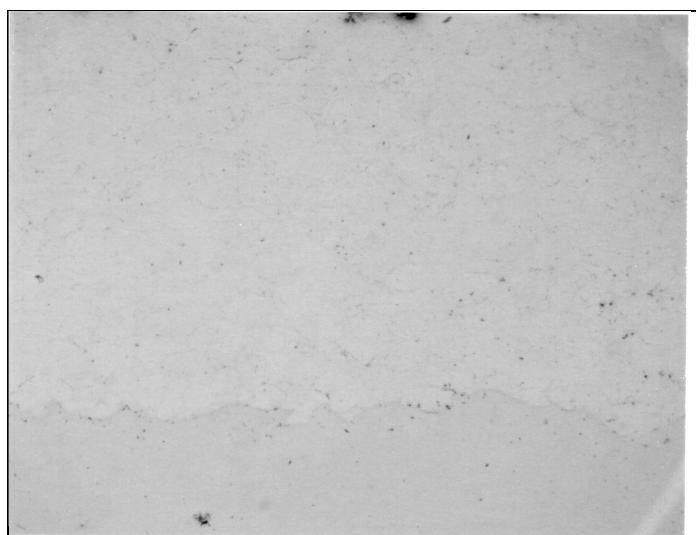
Coating Properties

NI-202-3 / 1278F Nickel – Chromium – Iron – Niobium – Molybdenum (Alloy 718 Type)

Spray Conditions

Excellent coatings of NI-202-3 / 1278F can be obtained at spray rates of 0.2 to over 4.5 kg/hr (2 - +10 lb/hr) with the Model 5220 HP/HVOF Gun. For typical starting conditions see bulletin 1.9.2.2SH-1278F.

	<u>Spray Rate</u>
	4.5 kg/hr (10 lb/hr)
Coverage	135 ft ² /hr/0.001” (0.3 m ² /hr/mm)
Powder Required	0.07 lb/ft ² x 0.001” (14.5 kg/m ² x mm)



1278F Ni - Cr - Fe - Nb - Mo Coating 200X
Sprayed at 10 lb/hr Etchant: None (as Polished)

Coatings (typical):

Thickness (maximum) -		Over 0.250” (6.5 mm)
Finish -	As-Sprayed	190 μ-in AA
	Machined	100 μ-in AA
	Ground	Less than 10 μ-in Ra
	Polished	4 μ-in Ra
Bond Strength -		> 8,000 psi
Hardness -	Superficial	82-84 R _{15N}
	Macro	43-45 R _C
	Micro	450 DPH _{300g}
Microstructure -	Porosity	Less than 1%
	Oxides	Less than 2%
Coating Density -		8.17 g/cm ³ *

* Calculated Value

Suggested Finishing Procedures:**Grinding**

Wheel:	60 grit Silicon Carbide
Wheel Speed:	5500 – 6500 sfpm
Part Speed:	25 – 75 rpm
Traverse/pass/rev:	0.080 – 0.170” (2 – 4.3 mm)
Infeed:	0.0005” (0.0127 mm)

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. Praxair and TAFE is committed to a continuing program of product improvement. Product specifications are subject to change without notice. Praxair and TAFE 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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