

# The Argen Corporation

## Alloy Specification Sheet

### NOBLECROWN NF - Digital

Color: White  
Type: V  
ADA Classification: NOBLE (N)  
PGM: 25%

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### Metal Content %

Pd	Co	B	Mo	Cr
25	42.6	X	12	20

'X' denotes content of less than 1%

### Thermal Properties

Melting Range	Casting Temperature	Coefficient of Linear Thermal Expansion (um/m-°C)	
		25-500	25-600
2280-2350 °F	2550 °F		
1250-1290 °C	1400 °C	14.4	14.8

### Mechanical Properties

Vickers Hardness (VHN)	Yield Strength (0.2% Offset)		Modulus of Elasticity (GPa)	Elongation (%)	Density (g/cm <sup>3</sup> )
A.F.	A.F.		192	A.F.	9.2
335	90,000 psi	620 MPa		4	

### Process

Design

Receipt/Finishing

### Instructions for Use

Follow recommended scan/design parameters for your scanner

Units will arrive pre-finished. Additional finishing will be necessary before oxidizing/degassing process. Grind the metal surface for porcelain application with cross-cut carbide burr in one direction. Blast with non-recycled 50 micron aluminum oxide. Do not exceed a blast process of 4 bars or 60 psi. Clean in distilled water in an ultrasonic cleaner for 10 minutes.

Oxidizing or Degasing	650-980 °C. 1200-1800°F. Vacuum, no hold. Remove oxide with non-recycled 50 micron aluminum oxide. Do not exceed a blast process of 4 bars or 60 psi. Clean in distilled water in an ultrasonic cleaner for 10 minutes.
Porcelain Application	Follow the recommendations of the porcelain manufacturer. For a better bond, fire a thin wash 10-15°F (10°C) above normal temperature, followed by regular opaque coats.
Laser Wire	LWNPCO
Polishing	For ceramic alloys, use diamond paste and/or Tripoli and rouge with soft bristles and chamois wheels. High shine with clean soft bristle brushes and/or muslin wheels.