

## Data Sheet

# MoldMAX<sup>®</sup> V

Brush Wellman's MoldMAX<sup>®</sup> V (MMV) is a high conductivity, moderately high strength, copper nickel silicon chromium alloy. Applications include injection mold and blow mold cores and cavities.

### CHEMICAL COMPOSITION (weight percent)

Alloy	Nickel	Silicon	Chromium	Copper
MoldMAX <sup>®</sup> V	6.5 - 7.5	1.5 - 2.5	0.6 - 1.2	Balance

### PHYSICAL PROPERTIES

Elastic Modulus	Melting Point (Solidus)	Density	Thermal Expansion	Thermal Conductivity (100° C)	Heat Capacity (100° C)
18,500 ksi 130 GPa	~1800 °F ~980 °C	.314 lb/in <sup>3</sup> 8.69 g/cm <sup>3</sup>	9.72 x 10 <sup>-6</sup> °F <sup>-1</sup> 17.5 x 10 <sup>-5</sup> °C <sup>-1</sup>	92 BTU/hr-ft.°F 160 W/m·K	.098 BTU/lb.°F 0.41 J/g·K

### TYPICAL MECHANICAL PROPERTIES \*

0.2% Offset Yield Strength	Ultimate Tensile Strength	Fatigue Strength 10 <sup>7</sup> Cycles (R=-1)	Elongation	Impact Strength (CVN)	Hardness
105 ksi 725 MPa	125 ksi 860 MPa	40 ksi 275 MPa	7%	5 ft·lb 7 J	270 HBR (28 HRC)

\*Hardness is tested via Brinell Test Method at 3000 Kgf load and equivalent Rc values converted per ASTM-E-140, Table 1. Properties may vary by shape and thickness.

### FORMS AVAILABLE

Rounds, plates, and parts finished machined per customer drawings

### RELATED INFORMATION

Additional information on MoldMAX<sup>®</sup> products can be obtained by calling 800-375-4205.