



Technical Information: SM-100TM

SM-100 is a PM version of Nitinol 60 characterized by high hardness and excellent corrosion resistance
 SM-100 is capable of 58-62 HRC after heat treatment
 SM-100 is produced and trademarked by Puris LLC and Distributed exclusively by SB Specialty Metals

Typical Chemical Composition

Nickel	60.0%	Titanium	40.0%
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SM-100 Properties Comparison

	SM-100	440C
Hardness	58-62	58-62
Corrosion Resistance	Excellent	Average
Magnetism	Non-Magnetic	Magnetic
Young's Modulus	12	30
Thermal Conductivity	18 W/m-k	24 W/m-k
Thermal Expansion	12.4 x 10⁻⁶/C	10.0 x 10⁻⁶/C
Density	0.242 lbs/cubic inch	0.278 lbs/cubic inch
Annealed Hardness	30-35 HRC	225 BHN



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Heat Treatment

Annealing

SM-100 is supplied in the annealed condition
Annealed hardness approximately 30-35 HRC

Hardening (Aging)

Salt bath, protective atmosphere, or vacuum furnace equipment preferred.

1775/1825°F for 20 minutes at heat
1800°F Recommended

Quench

Quench in Oil or Quench between plates to ensure flatness

Typical Heat Treat Response

