

Rokide® Rods Technical Bulletin



ROKIDE® HPA (Aluminum Oxide) Ceramic Rod for Thermal Spraying

PROPERTIES

- High Electrical Resistive
- Stability At High Temperatures

AVAILABLE ROD SIZES

- 989100200020 - 1/4" Diameter x 18" Length (4.75 mm x 457 mm)

APPLICATIONS

- High Temperature Strain Gages

SPRAY PARAMETERS

Acetylene	Pressure: 15 psi	Ball Height: 60+
Oxygen	Pressure: 90 psi	Ball Height: 90+
Air	Pressure: 80 psi	
Standoff Distance	4 inches (10 cm)	

Rod Type	989100200020 (1/4" x 18")
Nozzle	987733213000
	987733279000
Air Cap	987733281000
Rod Speed	4-5 in/min (10-13 cm/min)
Lay Down Rate	0.5 Lbs/hr (0.23 Kg/hr)
Deposit Efficiency	78%

CoatingSolutions@Saint-Gobain.com | www.coatingsolutions.saint-gobain.com

SAINT-GOBAIN COATING SOLUTIONS



ROKIDE® HPA (Aluminum Oxide) Ceramic Rod for Thermal Spraying



PACKAGING

Rod Type	989100200020 (1/4" x 18")
Rods Packaged in tubes	100 rods
(3) Tubes per Cardboard Box	300 rods
Tube weight	11.5 Lbs. (5.2 Kg)

COATING FEATURES

PHYSICAL	
Color	White
Total porosity	10.4 %
Bulk Density	3.2 g/cc
Crystal Phase	Gamma Alumina

MECHANICAL	
Coating Hardness	750 (Vickers/DPH)
Bond Strength	3841 psi
Sand Blast Penetration	0.0348 Depth/mm
Falex Wear test	156.2 mm ³ /KMS

THERMAL	
Coefficient of Expansion	4.1 x 10 ⁻⁶ from 70° - 2250° F (in/in/°F)
Melt Temperature	3600° F

ELECTRICAL	
Conductivity	Nonconductor
Dielectric Strength	(AC Volts/mil Thk.) 0.005" Thk. - 160
Dielectric Constant	10 at 0-600°F
Dissipation Factor	0.05 at 0-600°F
Loss Factor	0.5"

TYPICAL CHEMICAL COMPOSITION (%)

Al ₂ O ₃	99.8
TiO ₂	0.01
SiO ₂	0.04
CaO	0.10
Cr ₂ O ₃	0.01
NaO ₂	0.01
Fe ₂ O ₃	0.02
MgO	0.01

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