

Saint-Gobain Coating Solutions

Technical Bulletin

ROKIDE® EZ (Zirconium Oxide) Ceramic Rod for Thermal Spraying

Properties

- Good Resistance to Mechanical Friction
- Good Abrasion Resistance

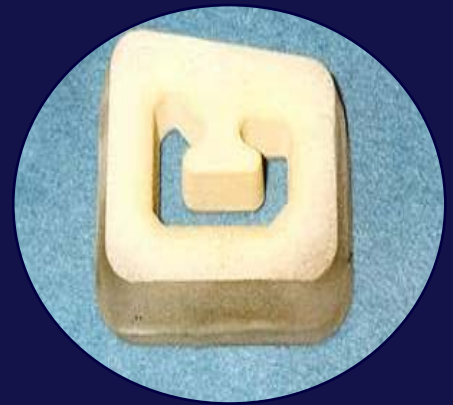
Available Rod Sizes

- 910.0194.D - 1/4" Diameter x 18" (4.75mm x 457mm)
- 910.0194.E - 1/4" Diameter x 24" (6.35mm x 610mm)

Spraying Conditions

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

<u>Rod Type</u>	<u>910.0194.D</u> <i>(1/4" x 18")</i>	<u>910.0194.E</u> <i>(1/4" x 24")</i>
Nozzle	773.3213.B or 773.3279.B	773.3213.B or 773.3279.B
Air Cap	773.3281.B	773.3281.B
Rod Speed:	4-4.5 in/min (10-12 cm/min)	4-4.5 in/min (10-12 cm/min)
Lay Down Rate	1.62 Lbs/hr (0.73 Kg/hr)	1.62 Lbs/hr (0.73 Kg/hr)
Deposit Efficiency	61%	61%



TYPICAL CHEMICAL COMPOSITION (%)

ZrO ₂	91.78*
TiO ₂	0.21
SiO ₂	2.62
CaO	3.92
Al ₂ O ₃	1.33
Fe ₂ O ₃	0.03
MgO	0.05

* Includes Hafnium

APPLICATIONS:

Hot Metal Extrusion Dies

Packaging

<u>Rod Type</u>	<u>910.0194.D</u> (1/4" x 18")	<u>910.0194.E</u> (1/4" x 24")
Rods Packaged in tubes	100 rods	100 rods
(3) Tubes per Cardboard Box	300 rods	300 rods
Bulk shipment – Rocon Drum	1,600 rods	1,600 Rods
Tube weight:	11.5 Lbs. (5.2 Kg)	17 Lbs. (7.8 Kg)

Coating Features

PHYSICAL

Color:	Light Tan
Total porosity:	8.6%
Bulk Density:	4.8 g/cc
Crystal Phase:	Cubic Zirconia

MECHANICAL

Coating Hardness:	694 (Vickers/DPH)
Bond Strength:	4621 psi
Sand Blast Penetration:	0.0148 Depth/mm
Falex Weartest:	97.2 mm ³ /KMS

ELECTRICAL

Conductivity:	Nonconductor
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