

# Saint-Gobain Coating Solutions

## Technical Bulletin

### **ROKIDE® C (Chrome Oxide)** Ceramic Rod for Thermal Spraying

#### Properties

- Good Resistance to Mechanical Friction
- Very Good Abrasion Resistance

#### Available Rod Sizes

- 910.0198.D - 3/16" Diameter x 24" (4.75mm x 610mm)
- 910.0208.F - 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>910.0198.D</u> (3/16" x 24")	<u>910.0208.F</u> (1/4" x 24")
Nozzle	773.3064.B	773.3213.B or 773.3279.B
Air Cap	773.3281.B	773.3281.B
Rod Speed:	5-6 in/min (13-15 cm/min)	4-5 in/min (10-13 cm/min)
Lay Down Rate	0.62 Lbs/hr (0.28 Kg/hr)	0.75 Lbs/hr (0.34 Kg/hr)
Deposit Efficiency	55%	51%



#### TYPICAL CHEMICAL COMPOSITION (%)

Cr <sub>2</sub> O <sub>3</sub>	90.33
SiO <sub>2</sub>	5.62
Al <sub>2</sub> O <sub>3</sub>	3.67
Fe <sub>2</sub> O <sub>3</sub>	0.27
MgO	0.11

#### APPLICATIONS:

Pump Sleeves, Pump Shafts,  
Impellers, Casings  
Pump End Plates, Pistons  
Pump Stuffing Box Covers  
Mud Pump Shafts  
Mechanical Seal Faces  
Valve Stems  
Suction Box Covers  
Deflectors  
Press Rolls  
Ball Valves  
Oil Seals  
Wire Drawing Capstans  
Wire Draw Blocks, Sheaves  
Wire Drawing Rolls, Guides,  
Wire Pulleys  
Bag Formers  
Heat Seal Bars  
Heat Seal Jaws

  
SAINT-GOBAIN

COATING SOLUTIONS

## Packaging

<u>Rod Type</u>	<u>910.0198.D</u> (3/16" x 24")	<u>910.0208.F</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	2,500 rods	1,600 Rods
Tube weight:	8 Lbs. (3.6 Kg)	14 Lbs. (6.3 Kg)

## Coating Features

### PHYSICAL

Color:	Black
Total porosity:	8.4%
Bulk Density:	4.5 g/cc
Crystal Phase:	Eskolaite

### MECHANICAL

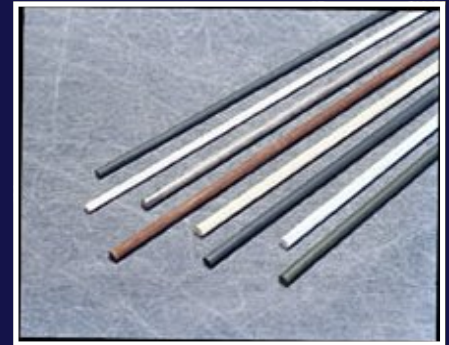
Coating Hardness:	1215 (Vickers/DPH)
Bond Strength:	4545 psi
Sand Blast Penetration:	0.0016 Depth/mm
Falex Weartest:	3.3 mm <sup>3</sup> /KMS

### THERMAL

Coefficient of Expansion:	5.0 x 10 <sup>-6</sup> from 70° - 2000° F (in/in/°F)
Melt Temperature:	3000° F
Conductivity:	18 (est) BTU/Hr/ft <sup>2</sup> (1000 – 2000° F)
Total Emittance:	0.8 - 0.9 (100 – 1200° C)

### ELECTRICAL

Conductivity:	Nonconductor
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