

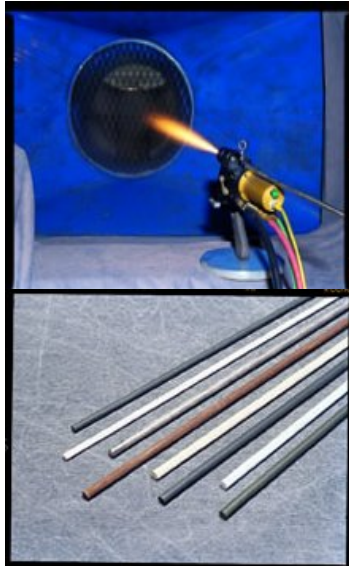
## ROKIDE® - COATED CAPSTANS

### Abrasive Wear In Wire Manufacturing

During the process of wire manufacturing, the haul-off capstan used to pull plastic insulated wire through an extrusion bead is subject to severe surface abrasion. This type of wear can cause system shutdowns, loss of production, and the need to frequently repair or replace the wire spooler.

### The Coatings Solution

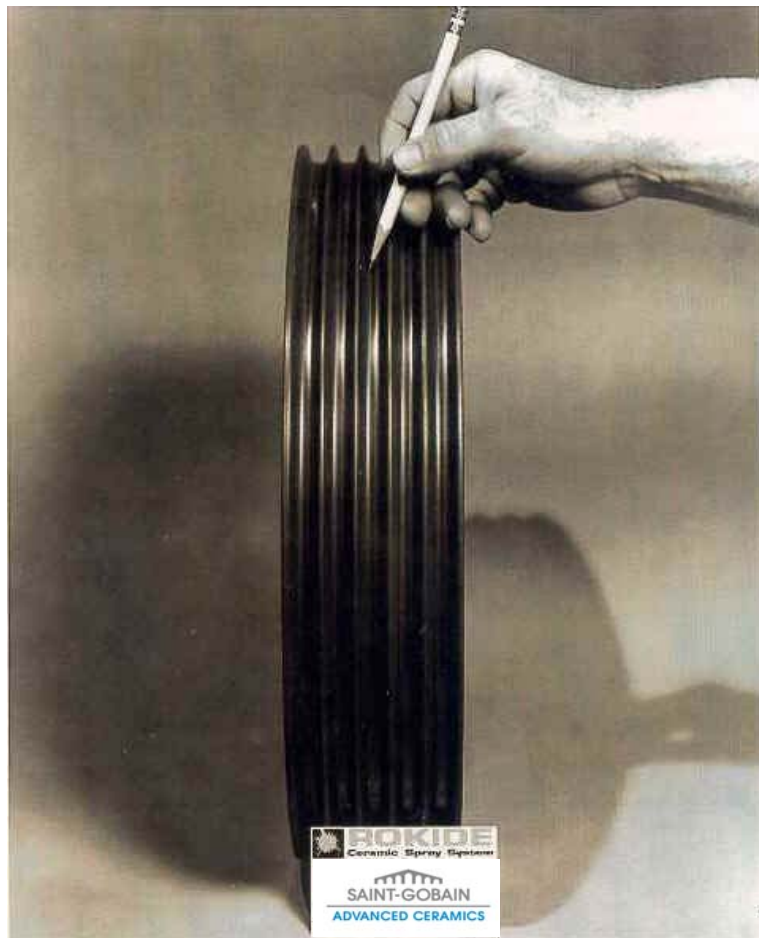
To solve wear problems experienced with the haul-off capstan in the wire extrusion line, SAINT-GOBAIN GRAINS AND POWDERS engineered a solution to extend the life of the wire manufacturing equipment.



**INDUSTRY**  
Wire

**PRODUCT**  
ROKIDE®

**MATERIAL**  
Chrome Oxide  
Ceramic Rods



In this application, the 16" (40.6 mm) diameter S-groove capstan was pulling plastic insulated electrical wire (8-14 gage) through the extrusion head at 200 to 600 fpm (1 to 3 m/sc). As it passed onto the capstan, the plastic wire abraded the aluminum surface of the wire spooler.

For this application, SAINT-GOBAIN GRAINS AND POWDERS recommended its exclusive ROKIDE C ceramic spray coating which was finished to 20-30 rms. ROKIDE is frequently specified as a wear solution when the size or shape of a component limits the use of a solid ceramic wear resistant surface. In the ROKIDE process, ceramic rods are melted, atomized, and sprayed at high velocity, 550 ft/sc (170m/sc), on the surface to be protected. ROKIDE forms an extremely hard, flexible, chemically inert coating that can be used as sprayed or finish ground to a specified tolerance.

Prior to the application of ROKIDE C wear resistant coating, the customer was using uncoated aluminum for the capstans. The part life was only 6 to 12 weeks. By applying SAINT-GOBAIN GRAINS AND POWDERS' ROKIDE C ceramic, the part life has been substantially extended. After 10 months of continuous operation with ROKIDE C, there were no signs of wear on the capstan surface. This coatings solution has significantly improved the cost effectiveness of the operation by maintaining wire spooler performance, reducing down time, and minimizing replacement costs for critical components in their production system.

### Custom-Engineered For Easy Installation

Each coatings solution is custom-designed, manufactured, and installed to meet the demands of your application and operating environment. In most cases, the solution is a direct replacement of the original design and does not require any further equipment alterations.

### Quality and Experience Give You The Competitive Edge.

As part of our Coating Solutions team, SAINT-GOBAIN GRAINS AND POWDERS offers the resources, technology, and experience to solve the most complex wear problems.

### Providing Global Solutions To Your Wear Problems Solutions

Our companies are solution-oriented. We assess your problem, present realistic options, and engineer wear systems that are appropriate for your operating environment. Our expertise in material science, our computer design technology, our unique shaping capabilities, and our expertise in attachment techniques give us the technical edge when it comes to solving wear problems. No matter where you are in the world, our full line of products and technical support are as close as your nearest Coating Solutions representative. Our sales offices are located throughout Europe, North and South America, Asia, India and Australia.

#### Materials

- Thermal Spray Powders
- *Rokide Rods*
- *Flexible Cord*
- *TUF COTE*
- Hardfacing Powders
- Anticorrosion wires

#### Equipment

- Rokide Ceramic Spray Systems
- Master-jet Spray Equipment

#### Applications

- Powdered Metal Reaction Barriers
- Mechanical Parts
- Wire Drawing Capstans
- Pumps, Valves
- Thermal Barrier for Power Generation
- Anti-Corrosion Coatings

#### Market Served

- Powdered Metal
- Petrochemical
- Wire Manufacturing
- Aerospace
- Hot Metal Extrusion
- Land Based Gas Turbine
- Pulp & Paper Manufacturing
- Chemical Processing
- Environmental Industries
- Glass bottle manufacturing

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