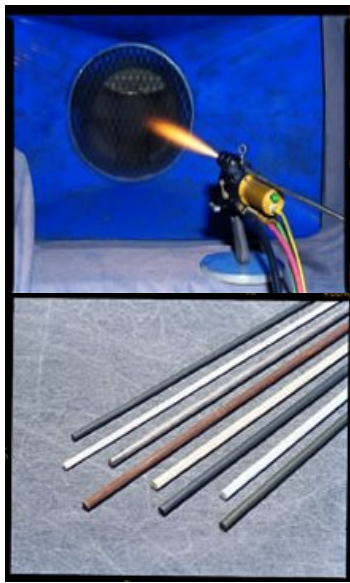


ROKIDE FOR PUMP SLEEVES FOR WASTE TREATMENT PLANTS



The treatment of waste water involves pumps operating 24 hours/day under very demanding conditions (see figure 1). The water used to transport abrasive solids is corrosive in nature, making pump maintenance a considerable drain of both time and money.

The normal mode of failure is leaking from the gland area as a result of wear and corrosion of the shaft (see figure 2). This can be overcome short-term by tightening of the packing gland, but over time, the leak path redevelops leading to the pump being removed for overhaul (see figure 3).

One simple solution from SAINT-GOBAIN GRAINS AND POWDERS has led to major reductions in downtime and the associated cost savings utilizing Rokide C (chrome oxide) to coat the pump shaft sleeves (see figure 4).

INDUSTRY
Waste Treatment

PRODUCT
Rokide

MATERIAL
Rokide™C™
Chrome Oxide
Ceramic Spray Rod

WASTE WATER PUMP



FIGURE 1: PUMP SLEEVE AS SHOWN IN SERVICE



FIGURE 2: WORN SLEEVE THAT HAS BEEN TAKEN OUT OF SERVICE



FIGURE 3: WORN AREA TO BE RE-PAIRED WITH ROKIDE C (CHROME OXIDE) COATING



FIGURE 4: ROKIDE C COATED SLEEVE INSTALLED INTO PUMP ASSEMBLY. SLEEVE HAS BEEN COATED AND GROUND TO ACHIEVE DIMENSIONAL FIT AND FINISH

COST SAVINGS PER PUMP

	INITIAL COST (US\$)	ESTIMATED LIFE-TIME (YEAR)	COST PER YEAR (US\$)	ADDITIONAL COSTS TO INSPECT AND REPAIR OVER LIFE-TIME	TOTAL SAVINGS OVER LIFETIME (US\$)
Current Material	\$175.00	6 Months	\$380.00	\$4800.00	N/A
ROKIDE Material	\$300.00	6 Years	N/A	N/A	\$4,850.00

For this application, SAINT-GOBAIN GRAINS AND POWDERS recommended its exclusive ROKIDE C (chrome oxide) ceramic spray coating. The parts are coated and then finished to a 16 to 17 RMS.

Our local waste treatment plant now has 14 of their 19 pumps coated with ROKIDE C. The first ROKIDE C coated pump sleeve put into operation is now in its fourth year of continual use and is still working well.

This plant will coat the balance of their pump sleeves when they need repair.

This application has been a solution in preventing downtime and pollution control in waste water treatment plants.

Background:

To solve wear and corrosion problems in difficult application environments, SAINT-GOBAIN GRAINS AND POWDERS has years of experience in many fluid handling (pump) applications in other industries.

ROKIDE is frequently specified as a wear and corrosion solution to extend the life of pump parts in many industries.

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 and chemically inert coating that can be used as sprayed or finish ground to a specified tolerance.

SLEEVE COATED WITH ROKIDE C MATERIAL AND THEN SLEEVE IS DIAMOND GROUND TO A 16 MICRON-FINISH



All of the above statements, recommendations, suggestions and data concerning the subject material are based on laboratory and field results, and although we believe the same to be reliable, we expressly do not represent, warrant or guarantee the accuracy, completeness or reliability of same, of the material, or the result to be obtained from the use thereof. Nor do we warrant that any such use, either alone or in combination with other materials, shall be free of the rightful claim of any third party by way of INFRINGEMENT or the like, and SAINT-GOBAIN GRAINS AND POWDERS DISCLAIMS ALL WARRANTIES, EXPRESSED OR IMPLIED OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

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 Coatings Solution 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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