

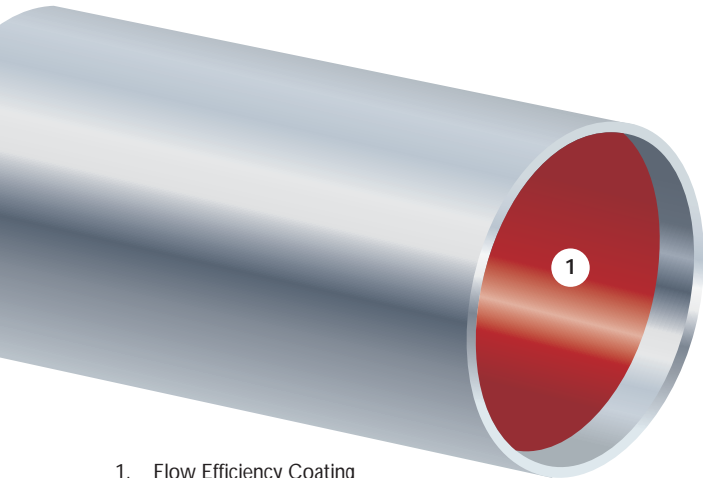
SureFlo® FEC

Thin Film Internal Epoxy Coating



INTERNAL

PRODUCT DATA SHEET



1. Flow Efficiency Coating

Product Description

SureFlo® FEC is a thin film epoxy coating applied in natural gas pipelines to smooth the internal pipe surface for improved flow.

Applications



Gas Pipelines



Large Diameter Pipelines



Small Diameter Pipelines

Related Standards and Specifications

- API RP5L2
- NACE RP 0181
- BGC/PS/CM2
- ISO 9001:2008
- BGC/PS/CM1

For additional standards and specifications with which this product complies, please contact your Bredero Shaw representative. In Canada, consult Shaw Pipe.



Ultra Smooth Finish

- Application of SureFlo® FEC replaces the internal rough surface of a steel pipe with a smooth surface finish.
- Reduction in friction and turbulence increases flow efficiency, which may allow for use of a smaller diameter pipe or lower compression requirements resulting in reduced capital and operating costs.

Improved Internal Surface Cleanliness

- After application of SureFlo® FEC, the clean internal surface of the pipe provides corrosion protection prior to installation and allows for easier visual inspection.
- The cleaner surface reduces the cost and effort of drying the pipe after hydrostatic testing.

Global Availability

- Available from a network of coating plants strategically located across the world to minimize pipe transportation costs.
- Can be manufactured in a single plant or in multiple coating plants to improve project logistics.
- High capacity within the Bredero Shaw plant network allows the client to benefit from single source advantages, providing more cost effective management of pipe coating needs.

Features & Benefits

SureFlo® FEC

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Typical Plant Capabilities and Product Properties

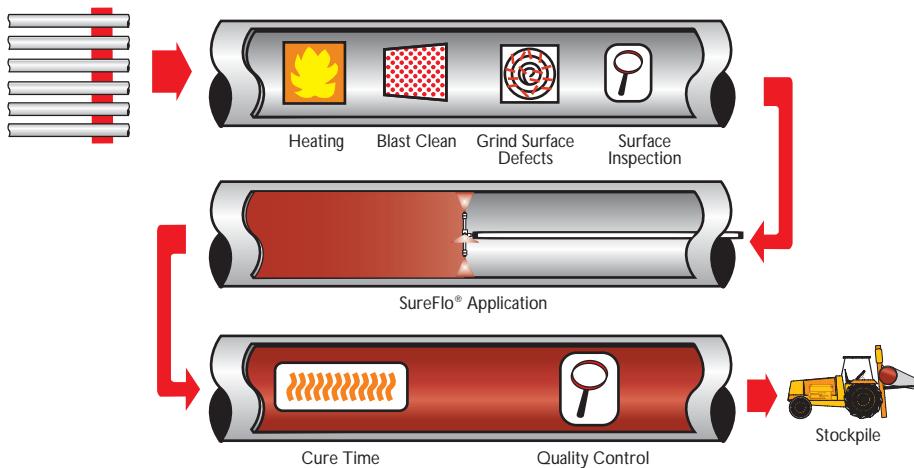
Capability/Property	SureFlo® FEC
Minimum Internal Pipe Diameter	300 mm (12")
Maximum Internal Pipe Diameter	1320 mm (52")
Minimum Pipe Length	10 m (33')
Maximum Pipe Length.....	24 m (80')
Minimum Operating Temperature	-40°C (-40°F)
Maximum Operating Temperature.....	129°C (264°F)

Values shown are typical and may vary from plant to plant. Consult Bredero Shaw for special requirements. In Canada, consult Shaw Pipe.



SureFlo® FEC_rev021

Product Application Process



Plants

North America

Camrose, Alberta
Portland, Oregon

Latin America

Veracruz, Mexico
Belo Horizonte, Brazil

EMAR

Leith, Scotland
Jubail, Saudi Arabia
Ras Al Khaimah, UAE

Asia Pacific

Kuantan, Malaysia
Kabil, Batam Island, Indonesia
Kembla Grange, Australia

About Bredero Shaw

Bredero Shaw is the global leader in pipe coating solutions. With more than 80 years of experience, the largest team of dedicated pipe coating professionals, the most extensive network of strategically located plants worldwide and with proven innovative coating technologies, the company has protected more pipelines in virtually every environment and operating condition than anyone in the industry.

Bredero Shaw offers technologically advanced solutions for anti-corrosion coatings, protective and weight coatings, thermal flow assurance coatings, internal coatings, custom coatings and field joints for both onshore and offshore applications. This broad range of products and services provides Bredero Shaw with the unique capability to service the full spectrum of pipeline protection and flow assurance requirements. Consult your Bredero Shaw representative for your unique project requirements.

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The information contained herein is indicative of the types of coatings provided by Bredero Shaw, and is not intended to be a guarantee that a particular coating will be suitable for a given application. Since many unique environmental, operating, and design conditions must be considered, the user shall determine the suitability of the coating for the intended use and assume all the risks and liabilities in connection therewith. Bredero Shaw's liability is stated in our standard conditions of sale.

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the GLOBAL LEADER in pipe coating solutions.