

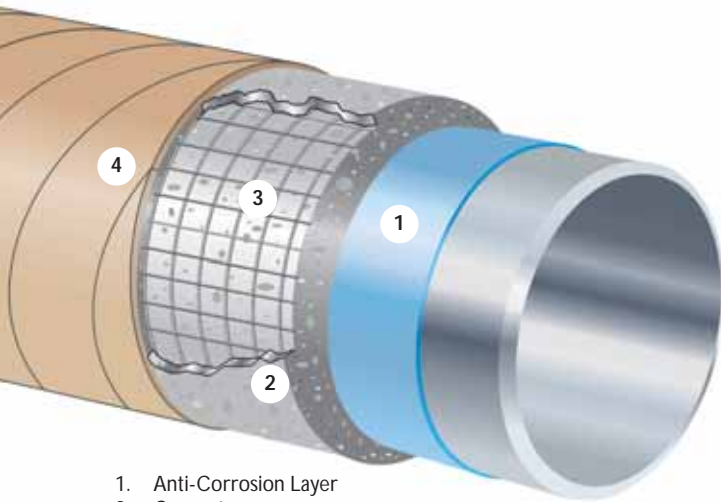
Rock Jacket®

Wrap Applied Bendable Concrete Coating



PROTECTIVE
& WEIGHT

PRODUCT DATA SHEET



1. Anti-Corrosion Layer
2. Concrete
3. Reinforcing Wire Mesh
4. Outer Wrap

Product Description

Rock Jacket® is a system that was developed to offer excellent mechanical protection to the anti-corrosion coating and the steel pipe of onshore pipelines with the lowest total installed cost, installation time and environmental impact in the industry. **Rock Jacket® is a plant applied reinforced concrete pipe coating developed for rocky terrain, rough terrain configurations such as steep slopes and for road and river crossings.** It has been designed to be buried directly in blasted out rock trenches without the use of other costly protective products and is ideal for both small and large diameter pipelines.

Applications



Mountainous/
Rocky Terrain



Road & River
Crossings



Large Diameter
Pipelines



Small Diameter
Pipelines

Related Standards and Specifications

- ISO 9001:2008
- ISO 21809-5:2010

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



Unique Mechanical Protection

- The only mechanical protection system in the industry that offers excellent protection to the anti-corrosion coating and the steel pipe from mechanical damage during pipe handling, transportation, field stringing, bending, backfilling and in-service use.
- Rock Jacket® is fully compatible with the most widely used anti-corrosion coatings in the market.

Design and Installation Flexibility

- The only mechanical protection system in the industry that has no limitations in terms of terrain configuration, trench material type and climate.
- It has also proven to be bendable to the requirements of all standard construction specifications without any non-standard equipment or additional effort on the contractor's side other than the use of oversized shoes and die on the bending machines for large diameters.

Economic Advantage

- Was developed to be directly buried in blasted out rock trenches, lowering the total installed cost of protecting the pipeline against mechanical damage compared to the use of more expensive protective systems such as sand padding backfill, mechanical padding or field applied rock shield.
- Reduces the costs associated with buying or renting additional equipment, with surplus rock removal and right-of-way costs as it does not need additional trench depth and width.

Global Availability

- Available from a network of fixed coating plants strategically located across the world to minimize pipe transportation costs.
- Can be applied in Bredero Shaw's mobile plants which can be mobilized in a short period of time to meet specific project requirements and to significantly reduce pipe transportation and handling costs.

Features & Benefits

Rock Jacket®

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Typical Plant Capabilities and Product Properties

Capability/Property	Rock Jacket®
Penetration Resistance	50% MAX @ 15kN
Minimum Impact Resistance	450 J (330 ft/lbs)
Bendability	1.5° per pipe diameter*
Minimum Compressive Strength (28 days)	20 MPa (3000 psi)**
Density	2243 kg/m ³ (140 lbs/ft.) [†]
Concrete Thickness	25 mm (1")
Minimum Pipe Diameter	90 mm (3.5")
Maximum Pipe Diameter	914 mm + (36" +) ^{††}
Minimum Pipe Length	5.5 m (18')
Maximum Pipe Length	19.8 m (65')

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

* For D/t up to 80; for D/t between 80 and 100, 1.2° per pipe diameter; for D/t > 100, 1.0° per pipe diameter.

** Characteristic Proctor cylinder compressive strength.

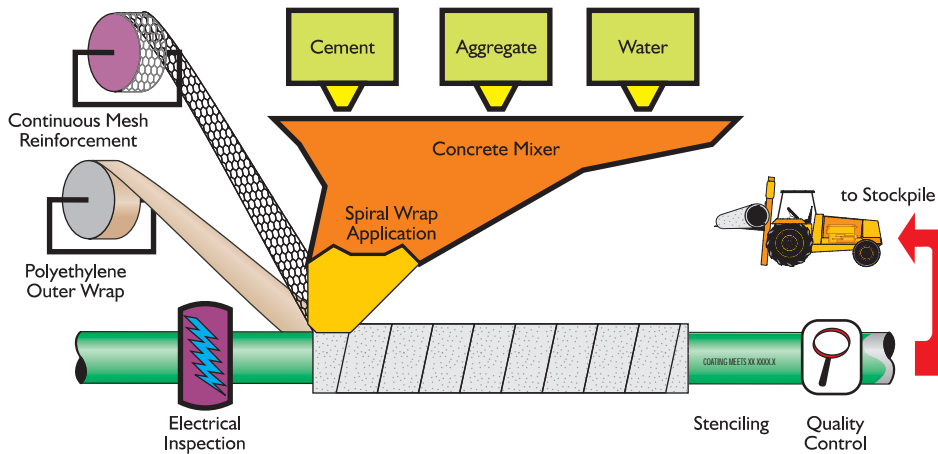
† Standard value; density can vary from 1760 kg/m³ (110 lbs/ft³) to 2560 kg/m³ (160 lbs/ft³) depending on the end use requirements.

†† Larger diameters may be possible. Please contact Bredero Shaw for more information.



Rock Jacket®_rev021

Product Application Process



Plants

North America

Edmonton, Alberta

Latin America

Coatzacoalcos, Mexico

Asia Pacific

Kembla Grange, Australia

A mobile Rock Jacket® plant is available for set-up at all Bredero Shaw plants or on location of the project. Sufficient time for plant mobilization is required.

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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