BAYOU PRODUCTS

High-quality pipe coating, concrete weight coating and insulation services

BAYOU PRODUCTS

The Bayou Companies has been providing high-quality pipe coating products and services to the oil & gas industry for over 75 years. Bayou offers a complete line of coating, insulation, welding (double/quad), field joint coating, anode and buckle arrestor installation. As a full service provider, Bayou has all the capabilities necessary to complement onshore, offshore and even the most challenging deepwater projects.

New Iberia, Louisiana facilities

- OD FBE coating
- ID FBE coating
- ID flow efficiency coating
- Pipe Stripping / Rehabilitation
- Concrete weight coating
- Flow assurance insulation coating

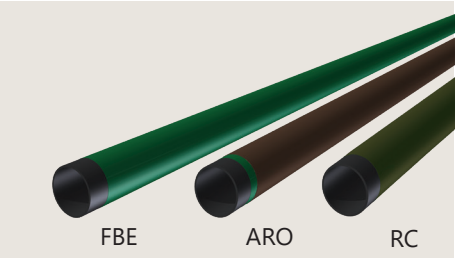
Logistics/services

- 250+ acres storage space
- 6,000 linear ft. quayside
- 6 barge loading/unloading sites
- 100 ft. X 400 ft. barge accessible
- 2 x 220 ton crawler cranes
- 70 & 65 ton cherry pickers
- 14 wheel loaders
- 5 excavators with vacuum lifts
- 2 bucket loaders
- Onsite truck and rail access

Ancillary services

- Field joint coating
- Onsite third-party multi-jointing
- Pipe bends
- Anode installation
- Buckle-arrestor installation
- Pipe Cutting Services
- Beveling
- Boring
- End measuring/matching
- End conditioning
- Heat shrink sleeves
- 2-part epoxies

Anti-Corrosion Products



BASE COAT

Fusion bonded epoxy

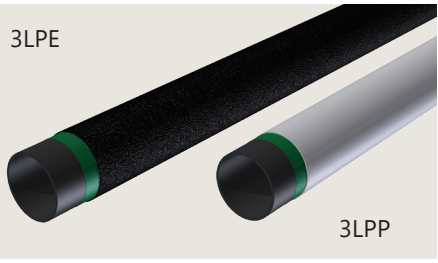
- Thin film FBE powder
- Typical thickness: 12-18 mils
- 6 in. min to 48 in. max OD
- Pipe lengths up to 80 ft. max
- Max operating temp: 180°C
- Economical solution for large diameter pipelines (>16 in. OD)

FBE/abrasion resistant overcoat (ARO)

- 2-layer FBE system
- Base coat FBE: 12mils min.
- Top coat ARO: 18 or 28 mils
- Total thickness: 30 or 40 mils min
- 6 in. min to 48 in. max OD
- Pipe lengths up to 80 ft. max
- Max operating temp: 180°C
- System used for directional drilling and slip bores

FBE/Rough Coat (RC)

- 2-layer FBE system
- Base coat FBE: 14 mils
- 2nd coat 2 to 4 mils roughcoat
- Total thickness: 26 or 36 mils min.
- 6 in. min to 48 in. max OD
- Pipe lengths up to 80 ft. max
- Max operating temp: 180°C
- System used in wet/muskeg environments



3-LAYER POLYOLEFIN (3LP)

- FBE primer + polymeric adhesive + HDPO extruded jacket
- Typical thickness 40 to 60 mils (with 1 mm to 4 mm HDPE jacket)
- 6 in. min to 48 in. max OD
- Pipe lengths: 35 ft. min 80 ft. max
- Offers enhanced mechanical protection for rugged terrain
- Moisture and soil resistant to allow for higher operating temperatures
- Offers superior adhesion, cathodic disbondment resistance and mechanical protection
- Ideally suited for directional or bored crossings
- Exceptional for moist conditions and moderately rocky conditions
- Compliancy: CSA Z245.21-06 B1

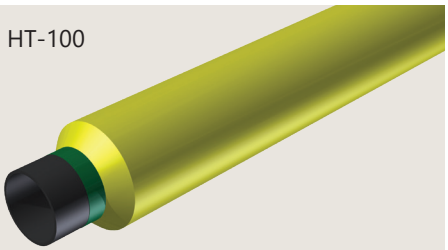
3-layer polyethylene (3LPE)

- FBE primer + polymeric adhesive + HDPE extruded jacket
- FBE thickness: 10 mils min
- Adhesive thickness: 8 mils min
- HDPE thickness: 40 mils min
- Max operating temp: 85°C
- Min handling temp: -40°C

3-Layer polypropylene (3LPP)

- FBE Primer + polymeric adhesive + HDPP extruded jacket
- FBE thickness: 10 mils min
- Adhesive thickness: 8 mils min
- HDPP thickness: 40 mils min
- Max operating temp: 145°C
- Min handling temp: -40°C

HT-100



GLASS SYNTACTIC POLYURETHANE (GSPU)

- Polyurethane (PU) based subsea wet insulation system filled with hollow glass microspheres (HGMS)
- HGMS is a 3M product made from silica glass in the form of 30 micron diameter spheres. HGMS improve resistance to heat flow within the PU matrix and are resistant to extreme crushing forces found at subsea water depths
- PU systems for subsea applications are formulated to resist chemical breakdown in hot and wet service conditions. WE use Dow HYPERLAST™, and also other products.
- GSPU is a reaction injection molding (RIM) product. PU components and HGMS are blended and injected into steel molds that surround the pipe's outer surface
- GSPU delivers excellent thermal insulation, adhesion, impact strength and durability across a broad spectrum of demanding installation and operating conditions
- GSPU facility boasts an industry-leading molding process, significantly reducing the risk of costly quality issues during installation and field joint operations

Primary specifications

- 3 in. min to 24 in. max OD
- Pipe lengths: 35 ft. min to 42 ft. max
- Thermal conductivity: 0.1-0.17 W/mK
- U-Value Range: 1.5 W/m2K and higher
- Min operating temp: -35°C
- Max operating temp: 115°C
- Water Depth Range: 0-3,000 m

CWC

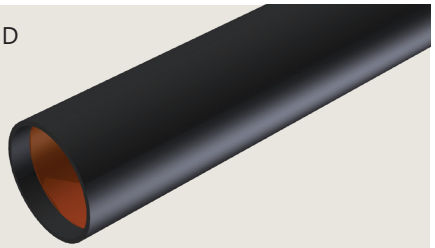
CONCRETE WEIGHT COATING (CWC)

- CWC is a plant-applied coating used to achieve negative buoyancy for offshore pipelines or river/road crossing applications
- Bayou uses a compression wrap process which keeps the anticorrosion coating free of damage. Concrete is applied by wrapping a uniform layer while simultaneously wrapping reinforcing wire within the concrete coating for stability
- A calculated mixture of cement, sand, iron ore and wire wrap is applied to a predetermined thickness level
- Bayou's CWC system is typically used in conjunction with other coating systems such as FBE and 3LP
- Bayou offers integrated anode installation to maintain the integrity of the cathodic protection system.
- Bayou also uses various methods to avoid slippage between the concrete layer and anti-corrosion coating, such as adding a rough-coat layer or applying a 2-component epoxy adhesive to bond the concrete to the coated surface
- Bayou has a containerized mobile CWC plant that offers CWC application in close proximity to the project site.
- Bayou has coated over 4.5 million ft. of pipe with CWC to date

Primary specifications

- 6 in. min to 48 in. max OD
- Pipe lengths: 35 ft. min to 45 ft. max
- Density range: 140#, 165#, 190#, 210#

ID



ID COATING PRODUCTS (ID)

Internal flow efficiency coating

- Used to improve the flow of gas through the pipeline by creating a smooth, defect-free surface
- Removes mill scale and dirt which could adversely affect pigging operations if loosened during service
- Reduces surface roughness, improving the flow properties of the pipeline and lowering operating costs
- Enhances the visual inspection of the internal pipe surface
- The ID coating process involves four steps: (1) pre-heating the pipe to 5°F above dew point; (2) the pipe is then internally blasted using a steel abrasive to a commercial finish; (3) the coating is then spray-applied into the pipe; (4) finally, the pipe is re-heated post application to insure a tack-free finish

InnerGard™ ID FBE coating

- Comprised of FBE over phenolic primer
- An alternative to traditional polyethylene liners, clad welding, or expensive alloy steels for water injection lines
- Used to protect steel pipelines during storage for extended periods prior to installation, thus extending the life of the pipe
- The product provides excellent corrosion protection, increases flow efficiency, enhances flow assurance and greatly reduces costs vs. using high alloy pipe.

Primary specifications

- 4 in. min to 48 in. max OD
- Pipe lengths:32 ft. min to 42 ft. max
- Typical thickness: 1.5 mils to 3 mils

BAYOU TESTING CAPABILITIES

In-house testing

- FBE Cure (DSC scan)
- FBE and/or 3LP porosity
- FBE and/or 3LP flexibility
- FBE and/or 3LP cathodic disbondment Test (max 95°C)
- FBE and/or 3LP hot water resistance (max 95°C)
- FBE/3LP impact
- PE/PP melt flow
- PE/PP hardness
- PE/PP density
- GSPU glass content (sinkers)
- GSPU cross section examination
- GSPU thermal conductivity
- GSPU compressive strength
- PE/PP/GSPU tensile strength
- PE/PP/GSPU elongation at break
- GSPP Interlayer adhesion
- FBE/3LP/GSPU full-scale bend
- Penetration resistance
- Specific heat capacity

Third-party testing

- Fatigue test
- Tensioner test
- OHTC simulated service test
- Ring Shear test
- Heat aging test
- Water aging test
- UV aging test
- Abrasion resistance

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