



SUBSEA INSULATIONS: ENGINEERED TO PROTECT YOUR ASSETS



ThermoTron XT Product Data Sheet:

ThermoTron XT is a high-temperature wet insulation system intended for subsea flowlines and tiebacks with an internal operating temperature above 375°F, and suitable for water depths greater than 10,000 ft. This product consists of three layers, a corrosion resistant layer, a bonding agent layer, and a high-temperature high-density elastomeric layer.

The ThermoTron XT insulation system has 60 years of experience built into its technology. The insulation was designed to perform in harsh subsea environments. The three-layer coating system provides corrosion protection and excellent thermal insulation properties. The system is seawater resistant. It will also provide excellent resistance to weathering, fungus, and marine life.

It consists of three layers that are vulcanized to the steel pipe surface the first layer is a high operating temperature FBE corrosion coating that provides the pipe surface with a film that is highly resistance to chemical attack and to cathodic disbondment. The second layer consists of a bonding agent that works as a bonding layer between the ThermoTron XT insulation and the first layer of corrosion coating. The third layer consists of extruded ThermoTron XT 3" thick or depending on project U value the thickness could vary. The function of the third layer is to provide the system with excellent thermal insulation properties and mechanical protection.

ThermoTron XT is applied in our plants located in south central, Louisiana, to pipe of practically any length and diameter. The most common insulation thicknesses is 3 inch, although it can be applied in almost any thickness.

We also manufacture ThermoTron XT half-shell sleeves which can be applied in the field. The sleeves are used where more than one joint of pipe is needed for protection i.e. Flowlines. They fit over the welded areas of the pipe and are bonded to the pipe with a two-part structural adhesive.

SUBSEA THERMAL INSULATION: A NEW, COMPLETE, ELASTOMERIC SOLUTION

TYPICAL APPLICATIONS:

- Wet Insulation System for Flowlines
- Wet Insulation System for Production Risers
- Wet Insulation System for Hull piping
- Wet Insulation System for Tiebacks
- Wet Insulation System for Spools
- Wet Insulation System for Jumpers

INSTALLATION METHODS:

- J-Lay
- S-Lay
- Reel-Lay

THERMOTRON XT

| TYPICAL PROPERTIES | STANDARD | UNIT | VALUE |
|----------------------------------|---|-------------------|-------------------|
| Density | ASTM D 412-0ae2 | g/cm ³ | 1.12 |
| Weight Per Cu Ft | N/A | lbs | 69.90 |
| Shore Durometer | ASTM D 2240 | SHORE A | 80 |
| Tensile Strength | ASTM D-624-C | PSI | 1450 |
| Ultimate Elongation | ASTM D 412-0ae2 | % | 325 |
| Volume Resistivity | ASTM D-257 | Ohm-cm | 3.12E+14 |
| Tear Resistance | ASTM D624-00(2007) | lbf/in | 200 |
| Compression Set | ASTM D395-02 B 22h at 350°F | % | 25% |
| Max Compressive Stress | ASTM D695-08 | PSI | 811 |
| Compressive Modulus | ASTM D695-08 | PSI | 2293 |
| Taber Abrasion | ASTM D 3389-10 C17 stone for 5000 cycles | Mg/rev | .07 |
| Sea Water absorption | BSI BS ISO 1817 | % | 6% |
| Specific Heat DSC | ASTM D1269-01 | J/g°C,25°C | .9777 |
| Peel Adhesion | ASTM D 429-02A | PPI | TBD |
| Operating Temperature | N/A | °F | >375 (Max TBD) |
| Ozone Resistance | ASTM D 1149-99 100 pphm @ 40C for 70 hrs | N/A | No cracking |
| Coefficient of Friction Static | ASTM D 1894-14 | μ | 1.94 |
| Coefficient of Friction Dynamic | ASTM D 1894-14 | μ | 1.59 |
| Thermal Conductivity wet K-Value | N/A | W/mk | .231 |
| Thermal Conductivity dry K-Value | N/A | W/mk | .228 |
| Water depth rating | N/A | Feet | >10,000 (Max TBD) |

