

GTS-PE

Factory Grade™ 3LPE Field-Applied Coating System

The GTS-PE 3LPE coating system is the World's first heat recoverable coating system designed with Factory Grade™ 3LPE materials, delivering equivalent performance to the factory-applied 3LPE coating. Compared to other Factory Grade™ 3LPE coating systems, GTS-PE provides very low installation temperatures and a proven, uniform and repeatable application process.

Factory Grade™ 3LPE Coating Technology

- **Polyethylene HDPE top coat** delivers mechanical protection and resistance to moisture absorption that is equivalent to the factory-applied coating
- **High temperature liquid epoxy** on steel provides Factory Grade™ resistance to corrosion and cathodic disbondment and allows for low installation temperatures
- **PE copolymer** layer bonds the PE top coat to the epoxy and fuses to the factory-applied coating to eliminate the possibility of moisture ingress

Consistent End-to-End 3LPE Coating Performance

- Proven to provide consistent fusion to the factory-applied 3LPE coating
- A true 3LPE coating system with outer layers applied onto pre-cured epoxy layer for a guaranteed corrosion protection layer
- Proven on projects requiring the most advanced 3LPE coating performance, including reeling applications and large diameter directional drilling

Easy to Install with Process Control

- Factory Grade™ performance is achieved with remarkably low installation temperatures for added repeatability
- Can be installed directly by contractors, supported by Canusa-CPS' industry leading field service team, using uniform and controlled induction pre-heating technology
- Can be combined with the patented IntelliCOAT™ system, providing a fully automated, efficient and safe installation



Applications



Onshore Pipelines



Offshore, Reel, J & S Lay



High Moisture Environments

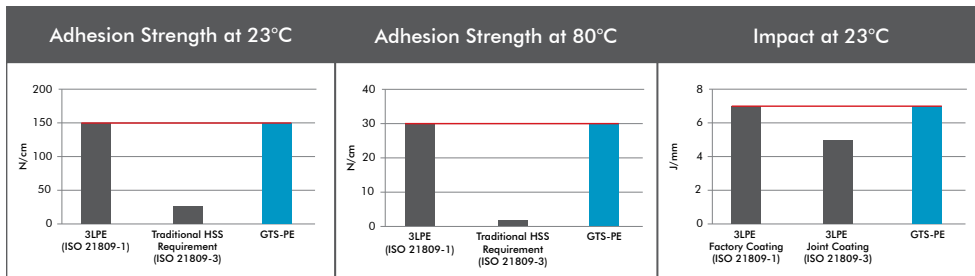


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| Sleeve Operating Characteristics | Test Method | Typical Values |
|--|-------------|----------------------------|
| Pipeline Operating Temp. | | Up to 100°C (212°F)* |
| Minimum Installation Temp. | | 130°C (266°F) |
| Main Line Coating Compatibility | | 3LPE, HPPC, SureBond™, FBE |
| PE Copolymer Properties | | |
| Softening Point | ASTM E28 | > 150°C |
| Lap Shear @ 23°C | EN 12068 | > 500 N/cm ² |
| Lap Shear @ 80°C | EN 12068 | > 100 N/cm ² |
| PE Top Coat (Backing) Properties | | |
| Tensile Strength | ISO 527 | 22 MPa |
| Elongation | ISO 527 | 600% |
| Hardness | ISO 868 | 55 Shore D |
| Volume Resistivity | ASTM D257 | 10 ¹⁷ ohm-cm |
| GTS-PE 3LPE Coating System Properties | | |
| Impact Resistance | ISO 21809-1 | 7 J/mm |
| Indentation Resistance @ 80°C | DIN 30670 | 0.4 mm |
| Adhesion Strength @ 23°C | ISO 21809-1 | > 200 N/cm |
| Adhesion Strength @ 80°C | ISO 21809-1 | > 30 N/cm |
| Cathodic Disbondment @ 23°C, 28 days | ISO 21809-1 | < 3 mm |
| Cathodic Disbondment @ 95°C, 28 days | ISO 21809-1 | < 9 mm |
| Hot Water Immersion @ 95°C, 28 days | ISO 21809-1 | Pass, No disbondment |
| Total System Thickness | Supplied | Typical Applied |
| Standard Product | 2.6 mm | 3.0 mm |
| (Custom project thickness available from 1.5 mm to 8 mm. Consult with your local Canusa Representative.) | | |

* Actual temperature rating is dependant on specific project requirements and conditions. Please consult your local Canusa representative.



Epoxy usage can be referenced on the Liquid Epoxy, Type E Product Data Sheet.

Since 1967, Canusa-CPS has been a leading developer and manufacturer of specialty pipeline coatings for the sealing and corrosion protection of pipeline joints and other substrates. Canusa-CPS high performance products are manufactured to the highest quality standards and are available in a number of configurations to accommodate many specific project applications.

The product information shown here is intended as a guide for standard products.

Consult your Canusa representative for specific projects or unique applications.

GTS-PE can be combined with the patented IntelliCOAT™ system, providing a fully automated Factory Grade™ coating system.



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Canusa-CPS is registered to ISO 9001:2008

Canusa warrants that the product conforms to its chemical and physical description and is appropriate for the use stated on the product data sheet when used in compliance with Canusa's written instructions. Since many installation factors are beyond our control, the user shall determine the suitability of the products for the intended use and assume all risks and liabilities in connection therewith. Canusa's liability is stated in the standard terms and conditions of sale. Canusa makes no other warranty either expressed or implied. All information contained in this data sheet is to be used as a guide and is subject to change without notice. This data sheet supersedes all previous data sheets on this product. E&OE

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