

# GTS-PP

## Factory Grade™ 3LPP Field-Applied Coating System

Launched in 2000, the GTS-PP 3LPP coating system remains the world's leading joint coating for 3LPP coated pipelines. Its patented design uses Factory Grade™ polypropylene materials to deliver equivalent performance to, and fusion to, the factory-applied 3LPP coating with low installation temperatures and a proven and controlled application process.

### Factory Grade™ 3LPP Coating Technology

- **Polypropylene (PP) top coat** delivers mechanical protection and resistance to moisture absorption critical for high temperature and deepwater pipelines
- **High temperature liquid epoxy or fusion bonded** on steel provides Factory Grade™ resistance to cathodic disbondment and allows for low installation temperatures
- **PP copolymer** layer bonds the PP top coat to the epoxy and fuses to the factory-applied coating to eliminate the possibility of moisture ingress

### Proven Compatibility and Fusion

- Proven to provide consistent fusion to the factory-applied 3LPP coating with efficient installation

### Easy to Install with Process Control

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

### Engineered for Maximum Efficiency

- Patented Reduced Edge Thickness design enhances installation efficiency and allows for elevated thickness applications
- Automated tube welding eliminates overlap/closure system typical of traditional sleeve systems, allowing for uniform thickness and cycle time reduction



### Applications



Onshore Pipelines



Offshore, Reel, J & S Lay



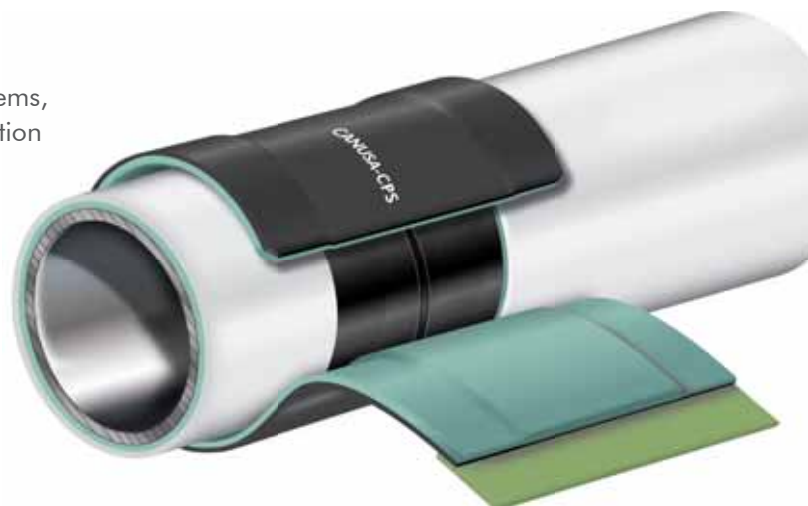
High Temperature



High Abrasion Environments



High Moisture Environments



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## Factory Grade™ 3LPP Field-Applied Coating System

Sleeve Operating Characteristics	Test Method	Typical Values
Pipeline Operating Temp.		Up to 140°C (284°F)*
Minimum Installation Temp.		175°C (347°F)
Main Line Coating Compatibility		3LPP, FBE
PP Copolymer Properties		
Melting point	ASTM D3418	147°C
Lap Shear @ 23°C	EN 12068	> 600 N/cm <sup>2</sup>
Lap Shear @ 110°C	EN 12068	> 100 N/cm <sup>2</sup>
PP Top Coat (Backing) Properties		
Tensile Strength	ASTM D638	28 MPa
Elongation	ASTM D638	> 400%
Hardness	ASTM D2240	65 Shore D
Volume Resistivity	ASTM D257	2 x 10 <sup>17</sup> ohm-cm
GTS-PP 3LPP Coating System Properties		
Impact Resistance	ISO 21809-1	10 J/mm
Indentation Resistance @ 110°C	DIN 30678	0.4 mm
Adhesion Strength @ 23°C	ISO 21809-1	> 250 N/cm
Adhesion Strength @ 110°C	ISO 21809-1	> 60 N/cm
Cathodic Disbondment @ 23°C, 28 days	ISO 21809-1	< 3 mm
Cathodic Disbondment @ 95°C, 28 days	ISO 21809-1	< 7 mm
Hot Water Immersion @ 95°C, 28 days	ISO 21809-1	Pass, No disbondment
Total System Thickness	Supplied	Typical Applied
Standard Product	2.8 mm	> 3.0 mm
(Custom project thickness available from 1.5 mm to 8 mm. Consult with your local Canusa Representative.)		



Exceeds factory-applied coating standards

Industry leading track record

Proven compatibility and fusion

\* 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 P 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-PP can be combined with the patented IntelliCOAT™ system, providing a fully automated Factory Grade™ coating system.



### Canusa-CPS A division of ShawCor Ltd.

#### Head Office

25 Bethridge Rd.  
Toronto, ON M9W 1M7 Canada  
Tel: +1 416 743 7111  
Fax: +1 416 743 5927

#### Canada

Suite 3200, 450 - 1st Street S.W.  
Calgary, AB T2P 5H1 Canada  
Tel: +1 403 218 8207  
Fax: +1 403 264 3649

#### Americas

2408 Timberloch Place, Building C-8  
The Woodlands, TX 77380 USA  
Tel: +1 281 367 8866  
Fax: +1 281 367 4304

#### Europe, Middle East, Africa & Russia

Unit 3, Sterling Park,  
Gatwick Road, Crawley, West Sussex  
RH10 9QT United Kingdom  
Tel: +44 1293 541254  
Fax: +44 1293 541777

#### Asia-Pacific

101 Thomson Road,  
#11-03 United Square  
307591 Singapore  
Tel: +65 6749 8918  
Fax: +65 6749 8919

### 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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