CANUSA-CPS

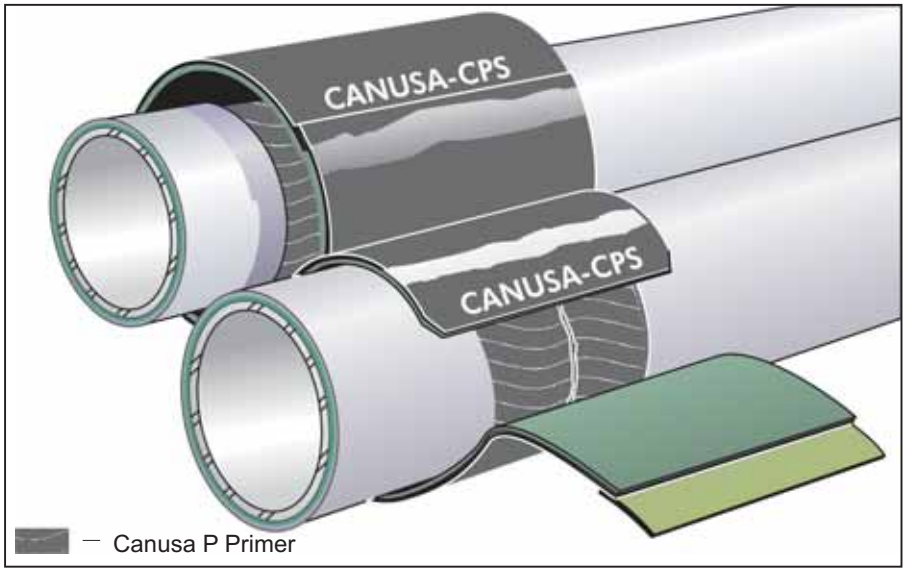
A SHAWCOR COMPANY

Product Data Sheet

GTS-PP Reliable Protection. Anywhere on the Globe.

For High Temperature Polypropylene Pipelines

Canusa-CPS is a leading manufacturer of specialty pipeline coatings which, for over 30 years, have been used for sealing and corrosion protection of pipeline joints and other substrates. Canusa high performance products are manufactured to the highest quality standards and are available in a number of configurations to accommodate your specific project applications.



Product Description

The GTS-PP system provides excellent adhesion and superior corrosion protection to polypropylene coated pipelines. GTS-PP has been designed with a patented unique cross-linked polypropylene backing and modified polypropylene adhesive. The combination allows sleeve recovery and bonding to polypropylene mainline coatings. Lower preheats are required versus other systems and superior bonding is achieved without damaging the factory applied 3LPP coating during installation.

Features & Benefits

High Performance Components

Canusa has also developed a high-temperature resistant epoxy primer for GTS-PP and, using Canusa's proven method of force curing the primer, provides the assurance that the pipe is fully protected prior to sleeve application.

Unique Adhesive Technology

Canusa's unique adhesive technology allows for lower installation pre-heats and superior bonding to polypropylene coatings. The adhesive has been formulated to bond directly to the factory applied 3LPP coating while the epoxy is applied to the steel only. The result is a superior bond to the substrate and quicker application.

Long Term Corrosion Protection

GTS-PP provides superior corrosion protection because of the high performance system approach. The epoxy primer / sleeve combination provides protection with the structural integrity of an extruded coating, resulting in excellent resistance to cathodic disbondment and excellent durability against abrasion and chemical attack. The result is effective, long term protection against corrosion.

Rapid, Reliable and Safe Installation

Time is saved in three ways; lower installation temperatures means less time for heating and cooling; liquid epoxy applied on the steel only, means less time applying the epoxy; and the pre-manufactured sleeve means less time in handling, positioning and installation. The overall system minimizes installation time and labour costs while promoting high production rates. The 100% solids based, solvent free liquid epoxy primer and pre-manufactured polypropylene sleeve also eliminate the need to spray harmful components during installation, as is required for other more complex field-applied PP coating systems.

Patented Technology

We have secured US and European patents and corresponding patents in other parts of the world for our GTS-PP technology.

Applications

- Oil & Gas
- Offshore Pipelines
- High Temp
- Girth-Weld Joints
- Polypropylene

Configurations

- Wrapid Sleeve™
- CanusaTube™
- 3-Layer

Pipe Sizes

115 - 1220 (4" - 48")

Temperature Range

up to 140°C (284°F)*

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

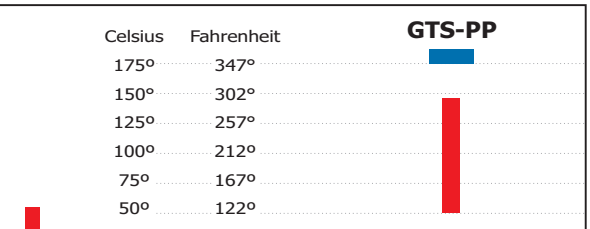
The product selection chart shown here is intended as a guide for standard products.
Consult your Canusa representative for specific projects or unique applications.
Below are typical values based on Heavy Duty (L-thickness) Sleeves.

GTS-PP

For High Temperature Polypropylene Pipelines

Product Selection Guide

Sleeve Operating Characteristics



		GTS-PP
Offshore / Onshore Pipeline Operating Temp.	°C (°F)	Up to 140 (284)*
Minimum Installation Temp.	°C (°F)	175 (347)
Resistance to Circumferential Forces		excellent
Resistance to Soil Stress		excellent
Resistance to Axial Pipe Movement		excellent
Main Line Coating Compatibility		PP, FBE

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

Typical Product Properties

		Test Standard	Unit	Typical
Adhesive	Density	ASTM D792	g/cm^3	0.93
	Melting Point	ASTM D3418	°C (°F)	147 (297)
	Lap Shear @ 23°C (73°F)	DIN 30 672	N/cm^2	> 500
	Lap Shear @ 100°C (212°F)	DIN 30 672	N/cm^2	> 100
	Lap Shear @ 130°C (266°F)	DIN 30 672	N/cm^2	> 60
Backing	Density	ASTM D792	g/cm^3	0.93
	Tensile Strength @ 23°C (73°F)	ASTM D638	MPa	28
	Elongation at Break @ 23°C (73°F)	ASTM D638	%	425
	Hardness	ASTM D2240	Shore D	65
	Water Absorption @ 23°C (73°F), 24 hours	ASTM D570	%	0.2
	Volume Resistivity	ASTM D257	ohm.cm	2×10^{17}
	Low Temperature Brittleness @ -40°C (-40°F)	ASTM D746	–	pass
Sleeve	Peel Strength @ 23°C (73°F)	NF A 49-711	N/cm	>200
	Peel Strength @ 100°C (212°F)	NF A 49-711	N/cm	80
	Peel Strength @ 130°C (266°F)	NF A 49-711	N/cm	60
	Impact	NF A 49-711	J/mm	10
	Holiday Detection	NF A 49-711	kV	25
	Indentation @ 110°C (230°F)	DIN 30678	mm	<0.38
	Cathodic Disbondment @ 130°C (266°F), 28 days	ASTM G42*	mm	< 3
	Hot Water Immersion @ 95°C (203°F), 28 days	CSA	Rating	1

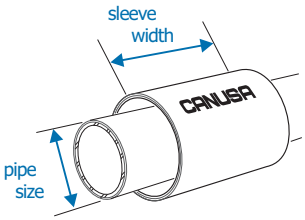
*ASTM G42 Test Method modified to suit testing @ 130°C (266°F)

How To Order:

Dimensions & Ordering Info

GTS-PP 915-450 WS BK Kit

	Ordering Options - GTS-PP
Colour	**BK -** Black
Configuration	**CT -** CanusaTube™, **WS -** Wrapid Sleeve™
Sleeve Width	**450, 600mm (18", 24") & Project Specific widths available**
Pipe Size	**115 - 1220 mm (4" - 48")**
Primer	Canusa P Primer
Adhesive (min. thickness as supplied)	**1.5 mm (60 mils)**
Backing (min. thickness as supplied)	**1.0 mm (40mils)**
Product Name	**GTS-PP -** Global Transmission Sleeve for Polypropylene Pipelines



Min. Sleeve Width =
Bare Steel Dimension + **50 mm** (2") on each side of the pipe joint.

CANUSA-CPS
A SHAWCOR COMPANY

www.canusacps.com

Canada
CANUSA-CPS
a division of SHAWCOR LTD.
25 Bethridge Road
Toronto, Ontario
M9W 1M7,
Canada
Tel: +1 (416) 743-7111
Fax: +1 (416) 743-5927

U.S.A./Latin America
CANUSA-CPS
a division of SHAWCOR INC.
2408 Timberloch Place
Building C-8
The Woodlands, Texas
77380, U.S.A.
Tel: +1 (281) 367-8866
Fax: +1 (281) 367-4304

Europe/Middle East
CANUSA-CPS
a division of Canusa Systems Ltd.
Unit 3, Sterling Park
Gatwick Road
Crawley, West Sussex
England RH10 9QT
Tel: +44 (1293) 541254
Fax: +44 (1293) 541777

Asia/Pacific
CANUSA-CPS
a division of SHAWCOR LTD.
#05-31, Blk 52, Frontier
Ubi Avenue 3
Singapore
408867
Tel: +65-6749-8918
Fax: +65-6749-8919

Canusa warrants that the product conforms to its chemical and physical description and is appropriate for the use stated on the installation guide 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 installation guide is to be used as a guide and is subject to change without notice. This installation guide supersedes all previous installation guides on this product. E&OE

Printed on recycled paper. Recyclable.

PDS-NA-GTSPP-rev027