

# CanusaCoat Copolymers

## Chemically modified PP and PE copolymers

CanusaCoat Copolymers are specially engineered to provide superior bonding of the pipe substrate to the top coat, resulting in a robust mainline coating system. The copolymers have been formulated to combine high shear strength, lower installation temperature and long-term corrosion protection. In order to facilitate convenient processing of the material for extrusion, the copolymers are supplied in pellet form.

### CanusaCoat Copolymer Technology

- CanusaCoat PP-1 and PE-1 copolymers bond the polypropylene (PP) top coat and polyethylene (PE) top coat, respectively, to the pipe substrate and as a result eliminates the possibility of moisture ingress
- High shear strength of the copolymers affirms superior structural integrity and provides robust resistance to pipe movements and the other mechanical forces associated with pipe lay and pipeline operation

### Consistent End-to-End Coating Performance

- A true 3-layer coating system with copolymer applied onto pre-cured epoxy layer, followed by top coat application, for a guaranteed corrosion protection layer

### Easy to Install with Process Control

- High 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 and methods of side extrusion



### Applications



Onshore Pipelines






Offshore, Reel, J &amp; S Lay



High Moisture Environments



FBE or Liquid Epoxy   
CanusaCoat   
Topcoat 

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Operating Characteristics	Test Method	PE-1 Copolymer	PP-1 Copolymer
Pipeline Operating Temp.		Up to 100°C (212°F)*	Up to 140°C (284°F)*
Top Coat Compatibility		HDPE	PP
Recommended Basecoat		FBE or Liquid Epoxy	FBE or Liquid Epoxy
CanusaCoat Properties			
Density		0.94-0.95 g/cm <sup>3</sup>	0.92-0.93 g/cm <sup>3</sup>
Softening Point	ASTM E28	> 150°C	> 150°C
Melt Flow Index (MFI)	ASTM D1238	1.2 g/10 min. @ 130°C, 2.16 kg	6.6 g/10 min. @ 190°C, 2.16 kg
Lap Shear	EN 12068	> 500 N/cm <sup>2</sup> @ 23°C > 100 N/cm <sup>2</sup> @ 80°C	> 600 N/cm <sup>2</sup> @ 23°C > 100 N/cm <sup>2</sup> @ 110°C
CanusaCoat with Topcoat Properties			
Adhesion Strength @ 23°C**	ISO 21809-1	> 150 N/cm	> 250 N/cm
Adhesion Strength @ Tmax**	ISO 21809-1	> 30 N/cm @ 80°C	> 60 N/cm @ 110°C
Cathodic Disbondment @ 23°C, 28 days	ISO 21809-1	< 3 mm	< 3 mm
Cathodic Disbondment @ 95°C, 28 days	ISO 21809-1	< 9 mm	< 7 mm
Hot Water Immersion @ 95°C, 28 days	ISO 21809-1	Pass, No disbondment	Pass, No disbondment

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

\*\* Based on 1.1 mm CanusaCoat™ copolymer and 1.5 mm topcoat thicknesses.

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

Consult your Canusa representative for specific projects or unique applications at [info@canusacps.com](mailto:info@canusacps.com).



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**Quality Management  
system registered to  
ISO 9001**

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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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.