

# HBE-OS

## High Build Epoxy coating for Offshore Corrosion Protection

The Canusa HBE-OS is the only liquid coating of its kind serving the offshore marketplace. It is a two-component epoxy coating system specifically formulated to withstand immediate force-curing at high build thicknesses, and achieve superior mechanical performance and corrosion resistance. The HBE-OS coating design allows for the fastest offshore cycle-times and protects operating pipelines up to 120°C (248°F). This environmentally friendly, 100% solids, novolac epoxy system can either be spray applied or brush applied to the intended bare steel substrate.

### Reduced Installation Temperatures

- HBE-OS requires significantly lower application temperatures (110°C) vs FBE (250°C) resulting in reduced installation times.

### State-of-the-Art Formulation

- The high build coating is designed to be force cured at 110°C (230°F) after application to achieve 60-90 second cure times and perfect porosity ratings.

### Exceeds FBE Performance Requirements

- HBE-OS exceeds FVE performance as specified in USA, British and Canadian test standards.

### High Temperature Corrosion Protection

- HBE-OS coating system was designed to protect operating pipelines up to 120°C (248°F).

### High Build in Single Coat

- A single pass application direct-to-metal will achieve a high build coating thickness of 20-40 mils (500-1000 microns).

### Offshore Uses

- Mainline pipelines, rehabilitation projects, girth weld field joints, damage and holiday repair to FBE, pipeline valves, fittings and bends.



### Applications



Oil & Gas



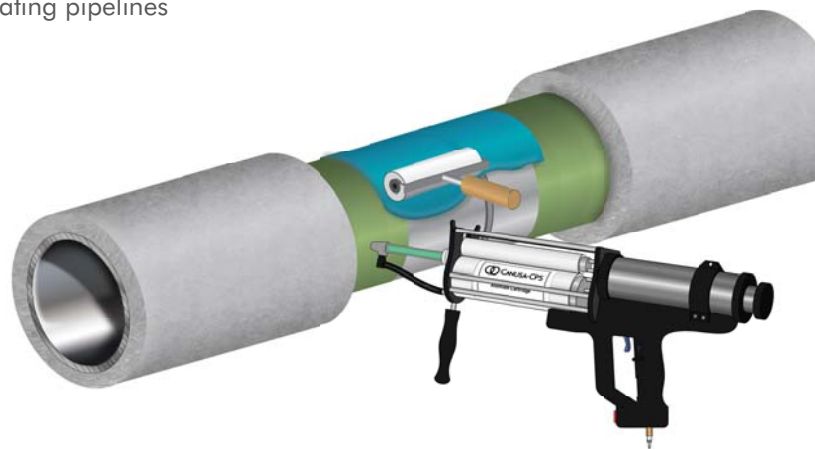
Offshore Pipelines



Girth-Weld Joints



High Temperature



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## High Build Epoxy coating for Offshore Corrosion Protection

Performance	All performance testing followed CSA-Z245.20-10 unless specified.
Service Temperature	Up to 120°C (248°F)
Mixing Ratio	3:1 (by volume)
Percent Solids	100%
Specific Gravity	Base: 1.56 Cure: 1.075
Hardness (ASTM D2240)	> 80 Shore D
Adhesion to Steel	> 2500 psi
Adhesion to FBE	> 2000 psi
Cathodic Disbondment	
28 days, 23°C	< 2 mm
28 days, 95°C	< 7 mm
28 days, 120°C	< 10 mm
Impact Resistance (25 mils coating thickness)	
@ -30°C	> 1.5 Joules (13.2 in-lb)
@ 25°C	> 3.0 Joules (26.5 in-lb)
Hot Water Immersion	
28 days, 75°C	Rating 1
28 day, 120°C	Rating 1
Flexibility @ 20°C	> 1.0°/pd
Interface Porosity (NACE RP 0394)	Rating 1
Cross-Sectional Porosity (NACE RP 0394)	Rating 1
Water Absorption (ASTM D570)	< 0.1 %
Chemical Resistance (ASTM D543)	Excellent in various pH solutions
Shelf Life	3 years when stored in original packaging between 5°C (40°F) and 40°C (105°F).
Typical Kit Size Required by Pipe Diameter <sup>1</sup>	
4.5" – 16"	0.5 Liter Kit
18" – 32"	1.0 Liter Kit
34" to 50"	1.5 Liter Kit

<sup>1</sup> Based on 400 mm coating width, 25 mils (635 micron) average thickness and 50% wastage factor.

### Safety

Handle with care. Before and during use, observe all safety labels on packaging containers, consult with Canusa-CPS Material Safety Data Sheets and abide by all local or national safety regulations.

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.



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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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