

## HBE-HT

### High Build Epoxy coating for High Temperature operating pipelines

The Canusa HBE-HT is a state-of-the-art two component epoxy coating system which has been specifically formulated for high temperature pipelines. Applied to bare steel, HBE-HT has proven to withstand operating temperatures up to 150°C (302°F) with exceptional performance. HBE-HT is used for protection of pipeline field joint girth welds, valves and fittings, as a holiday repair material on FBE coated pipe or for rehabilitation projects. This superior, 100% solids, novolac epoxy system can either be spray applied or brush applied to the intended substrate.

#### High Temperature Corrosion Protection

- HBE-HT coating system is designed to protect pipelines operating up to 150°C.
- The unrivaled performance of HBE-HT also includes, but is not limited to, protecting offshore pipelines operating at 120° C.

#### Exceeds FBE Performance Requirements

- HBE-HT exceeds FBE coating performance requirements, including impact resistance, hot water soak adhesion and resistance to cathodic disbonding, as specified in USA (NACE RP0394), British (CW6), and Canadian (CSA Z245.20) test standards.

#### State-of-the-Art Formulation

- Epoxy Phenol Novolac technology combined with proprietary amine cure chemistry allows the HBE-HT coating to maintain adhesion stability after extended aging in hot water and hot dry air.

#### 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).

#### Variety of Uses

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



#### Applications



Oil & Gas



Repair & Rehab



Girth-Weld Joints



Fittings & Bends



High Temperature



Offshore Pipelines



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Performance	All performance testing followed CSA-Z245.20-10 unless specified.
Service Temp.	Up to 150°C (302°F)
Typical Thickness	> 20 mils (500 microns)
Mixing Ratio	3:1 (by volume)
Percent Solids	100%
Specific Gravity	Base: 1.49 Cure: 1.05
Hardness (ASTM D2240)	> 80 Shore D
Adhesion to Steel	> 2500 psi
Adhesion to FBE	> 2000 psi
Cathodic Disbondment @ 28 days, 23°C	< 2 mm
Cathodic Disbondment @ 28 days, 120°C	< 10 mm
Cathodic Disbondment @ 28 days, 150°C	< 10 mm
Impact Resistance @ -30°C	> 1.5 J
Impact Resistance @ 25°C	> 3.0 J
Hot Water Immersion @ 28 days, 75°C	Rating 1
Hot Water Immersion @ 28 day, 120°C	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 and 40°C.
Cure Speed <sup>1</sup>	
Brush Grade and Spray Grade	Gel Time = < 40 minutes
Repair Grade Cure	Gel Time = < 10 minutes
Typical Kit Size Required by Pipe Diameter <sup>2</sup>	
4.5" – 16"	0.5 Liter Kit
18" – 32"	1.0 Liter Kit
34" to 50"	1.5 Liter Kit

<sup>1</sup> Gel times were measured @ 23°C (73°F).

<sup>2</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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#### 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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