

MARKETING TECHNICAL BULLETIN

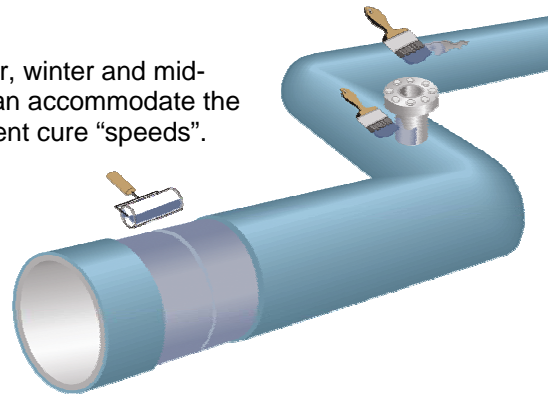
High Build Epoxy (HBE) Cure Profiles

Overview

Canusa-CPS offers various grades of HBE cure for summer, winter and mid-season applications. Application of brush grade HBE-95 can accommodate the spectrum of construction temperatures with the three different cure “speeds”.

Detail

In all cases, the Base (3 volume) component is common. The speed of the Cure (1 volume) component is altered without changing the epoxy chemistry. The goal is to balance Pot Life and Backfill Time, each of which vary with ambient and surface temperature changes.



The Pot Life, or amount of time that the mixed HBE-95 can be effectively applied on the pipe, is shown in Table 1. The shaded areas indicate the grade and temperature conditions that are workable for most construction crews – generally 7-16 minutes.

Table 1: Recommended (shaded) HBE-95 Pot Life at various ambient temperatures

| Kit Description (0.5, 1.0 & 1.5l kits) | Grade | Approximate Pot Life in minutes | | |
|---|------------------|---------------------------------|-------------|--------------|
| | | 10°C (50°F) | 24°C (75°F) | 38°C (100°F) |
| HBE-95 BG (p/n 24560.xxx) | Summer (slowest) | 33 | 16 | 7 |
| HBE-95 XG (p/n 24561.xxx) | Mid-grade | 15 | 11 | 4 |
| HBE-95 WG (p/n 24562.xxx) | Winter (fastest) | 7 | 4 | <2 |

Table 2 is estimated Backfill Time in colder temperatures, which equates to time required for HBE-95 to achieve a Shore D hardness of at least 75. This is dependent on substrate temperature during and after application.

Table 2: Approximate times for HBE-95 to reach 75 Shore D hardness

| Kit Description (0.5, 1.0 & 1.5l kits) | Grade | Approximate time to reach 75 Shore D (hours) | |
|---|------------------|--|-------------|
| | | 5°C (40°F) | 10°C (50°F) |
| HBE-95 BG (p/n 24560.xxx) | Summer (slowest) | >24 | >18 |
| HBE-95 XG (p/n 24561.xxx) | Mid-grade | 12-16 | <12 |
| HBE-95 WG (p/n 24562.xxx) | Winter (fastest) | <12 | <12 |

Summary

Seasonally, crews face a variety of construction temperatures. Typically, coating application is done early afternoon following a morning of excavating, grit-blasting and corrosion measurement & analysis. In this scenario, backfilling occurs the following day. Therefore as a field use guideline:

- Use HBE-95 BG – when the ambient temperatures are above 15°C (60°F)
- Use HBE-95 XG – when the ambient temperatures are in the 7 – 18°C (45-65°F) range
- Use HBE-95 WG – when the ambient temperatures are below 10°C (50°F)