

# Gaco 183M-CAN & Gaco 183M-CANW Winter Spray Application Guide

## **Drum Storage**

Store drums at 10°C to 21°C (50°F to 70°F).

## **Drum Prep**

**Prep drums to 15°C to 26°C (60°F to 80°F); do not exceed maximum of 26°C (80°F).** In order for the drum to be serviceable (meaning ready to spray), the drum must be in a temperature range that your reactor can take it the rest of the way to spray temps. Example: If your drum temperature is 80°F and you have an E-20 with a delta T of 50°F, your max spray temperature can only be 130°F. With this information it is important to know the delta T of your reactor and drum temperature to achieve the proper spray temperature. Do NOT recirculate or agitate Gaco 183M-CAN or Gaco 183M-CANW.

### ***Winter Spray Tip:***

- ✓ *Maintain drum temperatures for spraying at 21°C (70°F).*

## **Spray Pressures**

**1,200 to 1,400 psi for optimal performance.** 1200 psi is minimum for a .01 mix chamber (AR4242) and 1400 psi is minimum for a .02 mix chamber (AR5252). Look for good atomization and mix of chemical with a proper spray pattern.

### ***Winter Spray Tip:***

- ✓ *Dial in spray pressures and temperatures so when test sprayed you have a liquid to cream time of 1 second.*

## **Spray Temperatures**

**41°C to 54°C (105°F to 130°F).** The lower temp spectrums are used in warmer climates and the higher temp spectrums are used in colder climates. The foam should react at a rate of rise in 3 seconds and tack free in 5 seconds. Any slower than this and you should increase the temp and possibly pressure, and any faster than 3-5 seconds means you should decrease temp and possibly pressure.

### ***Winter Spray Tip:***

- ✓ *Dial in spray pressures and temperatures so when test sprayed you have a liquid to cream time of 1 second.*

## **Substrate Limitations**

**Substrates should be: clean, dry, and warm.** While clean and dry offers the best success for adhesion, warmer substrates provide better yields. The colder the substrate the lower the yields we can expect. Do not spray if surface temperatures are within 5 degrees of the dew point. Substrate moisture levels should be at or below 18%. Temps colder than what is recommended can result in the foam cracking and popping off of the substrate. Recommended substrate temperatures for Gaco 183M-CAN are 5°C to 49°C (40°F to 120°F).

*For Winter version, Gaco 183M-CANW, substrate temps must be above -6°C (20°F) and recommended substrate temperatures are -1°C to 38°C (30°F to 100°F). Ambient temperature must be at least 5 degrees above dew point.*

### ***Winter Spray Tips:***

- ✓ *Seal off spray environment as well as possible with plastic to help block direct cold winds from entering the spray area.*
- ✓ *Bring in dry element heaters to warm spray environment and substrates; place one heater behind the applicator where foam is curing and place one ahead of the applicator to warm the environment and substrate.*

## **Application Depths**

**Anything from a flash pass (1.7 cm or 0.5") to a full pass (5.1 cm or 2").** A pass greater than 5.1 cm (2") can result in charring of the foam which diminishes the physical properties of the foam such as R-value and dimensional stability. **Any applications greater than 5.1 cm (2") will require multiple passes.**

## **Winter Spray Tips:**

- ✓ *When multiple passes are required, allow the previous pass to cool to 43°C (110°F)*
- ✓ *While flash passes are not the most desired, flashing the substrate is sometimes necessary to heat the substrate for better adhesion. Keep in mind this can affect your yield and may not always be practical.*

## **Application Techniques**

**Most common: Holding the trigger and moving the gun from side to side while working from bottom to top of cavity.** Another option: Triggering the gun in an up and down motion within the cavity. There are several different styles and techniques used by thousands of applicators; regardless of your style, your job is to seal the cavity and fill to proper depth. For a smoother application either lower the pressure and spray close into the substrate or keep the pressure higher and spray further away from the substrate.

## **Inspect Application**

**Look for good cell structure and adhesion.** Remove any unreacted chemical from wall (due to pressure imbalances while triggering gun).

## **EQUIPMENT SETTINGS**

Pre-Heat - Iso (A):	41°C to 54°C (105°F to 130°F)
Pre-Heat - Poly (B):	41°C to 54°C (105°F to 130°F)
Hose Heat:	41°C to 54°C (105°F to 130°F)
Recommended Spray Pressure:	1,200 - 1,400 psi (dynamic)

## **REACTIVITY TIME**

Cream Time:	0 - 1 sec
Rise Time:	3 - 5 sec
Tack Free Time:	3 - 5 sec
Cure Time:	4 hours