

Gaco Wall Foam

SPRAY POLYURETHANE FOAM INSULATION

by Gaco Western®

Gaco 183M Spray Application Guide

Drum Storage

Store drums at 50°F - 70°F.

Drum Prep

Prep drums to 60°F - 80°F (maximum of 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 183M.

Spray Pressures

1,200 - 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.

Spray Temperatures

105°F - 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.

Substrate Limitations

Substrates should be: clean, dry, and warm. While clean and dry offers the best success for adhesion, warmer substrates provide better yields. 183M does have a cold substrate limitation of 35°F. Temps colder than 35°F can result in the foam cracking and popping off of the substrate.

Application Depths

Anything from a flash pass (0.5") to a full pass (2"). A pass greater than 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 2" will require multiple passes. While flash passes are not the most desired, they are sometimes necessary to heat substrates for better adhesion.

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). Press on cured foam and feel for voids, if voids are found inject foam into void.

EQUIPMENT SETTINGS

Pre-Heat - Iso (A):	105°F - 130°F (41°C - 54°C)
Pre-Heat - Poly (B):	105°F - 130°F (41°C - 54°C)
Hose Heat:	105°F - 130°F (41°C - 54°C)
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