

Gaco Wall Foam

SPRAY POLYURETHANE FOAM INSULATION

by Gaco Western®

Gaco 052N Spray Application Guide

Drum Storage

Store drums at 40 °F to 100 °F (4 °C to 38 °C).

Drum Prep

Prep drums to 60 °F to 100 °F (16 °C to 38 °C). In order for the drum to be ready to use, the drum must be in a temperature range where your proportioner can take it the rest of the way to spray temperature. *Example: If your drum temperature is 80°F and you have an E-20 with a delta T of 50 °F (10 °C), your maximum spray temperature can only be 130 °F (54 °C). If you want to spray at 140 °F (60 °C) with the same machine your drum must be 90°F (32 °C) to achieve that spray temperature. As you can see, it is important to know the delta T of your proportioner and your drum temperature in order to achieve the proper spray temperature. For those of you with recirc capabilities, you can recirculate the 052N to raise the drum temperature but do not recirculate the chemical over 100 °F (38 °C).*

Flushing

When changing from a closed cell product to open cell product, first purge the system with water to get the closed cell product out of the system, then come in behind with open cell to flush out the water. Remember to flush the entire system including recirc lines, proportioner and spray hose. Use water again to flush the open cell product out of the system before you go back to the closed cell product. Follow steps 1-5 on Tech Tip 028, *Eliminate Cross Contamination by Flushing with Water*. For a more detailed step by step flushing procedure refer to Tech Tip 045, *12 Proper Flushing Techniques*. Tech Tips can be found on gaco.com.

Spray Pressures

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

Spray Temperatures

110 °F to 150 °F (43 °C to 66 °C). The lower temperature spectrums are used in warmer climates and the higher temperature spectrums are used in colder climates. If the foam is reacting slowly or is slightly runny down the wall, then it is cold and requires more heat. If the foam starts to shrink after the initial reaction, then it is too hot and temperatures need to be dialed down. For autumn and winter seasons a good starting point is 135 °F (57 °C).

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 below 18%. Use Psychrometer for exact measurement of temperature, humidity and dewpoint.

Application Depths

Anything from a flash pass (0.5"/12.7 mm) to a full fill pass (3.5" to 5.5"/90 mm to 140 mm) in a cavity and depending on technique and cavity even thicker than 5.5" (140 mm). Keep in mind that the more passes you spray to fill a cavity the less yield you will get. While flash passes are not the most desired, they are sometimes necessary to heat substrates for better adhesion.

Inspect Application

Look for good cell structure and adhesion. Remove any unreacted chemical from wall (due to pressure imbalances while triggering gun). As with any open cell product, press on cured foam and feel for voids. If voids are found inject foam into void.

Equipment Settings

Pre-Heaters - Iso (A):	110 °F to 150 °F (43 °C to 66 °C)
Pre-Heaters - Poly (B):	110 °F to 150 °F (43 °C to 66 °C)
Hose Heat:	110 °F to 150 °F (43 °C to 66 °C)
Recommended Spray Pressure:	1,200 to 1,400 psi (dynamic)

Reactivity Time

Cream Time:	1 second
Rise Time:	3 - 4 seconds
Tack Free Time:	5 seconds
Cure Time:	4 hours