



TECH TIPS

a technical bulletin by the experts at Gaco Western

Winter Installation of Spray Foam

As we transition into winter temperatures, we need to pay close attention to barrel temperatures. In the summer we focused on keeping the material cool while now we must change our focus to keeping the material warm. It is a given that the materials must be protected from freezing. While freezing usually does not happen, a barrel dropping into the 40's, 50's and 60's (4-16° C) is quite common. Barrel temperatures in this range, while not particularly detrimental to the product, do require substantial time to heat the drums up to a suitable application temperature. Therefore to save time in the field, storing materials in a temperature controlled environment is a must.



All products, 183M, 052, and GacoFireStop, must be at least 70 degrees before application. This brings the relative viscosities of the Poly and the ISO close enough to allow the proportioner to pump at 1:1 ratio. If the barrels are below 70 degrees, the application will almost certainly be off ratio, ISO rich.

183M, due to the blowing agent 245FA, cannot be warmed above 80 degrees as this will cause frothing. Both 052 and GacoFireStop will have higher yields if the barrels are warmed into the 90's prior to application.

Review Tech Tip 003 (www.gacowallfoam.com/docs/TechTips003.pdf) for the significance of Dynamic and Static Temperatures. Cold weather really amplifies this issue. Colder substrates will call for warmer material temperatures that will often exceed the proportioner's heater capability. If the issue is not addressed yields can be impacted.

Ways to raise barrel temperatures include:

BAND HEATERS

Pro: Cost in the \$150 range.

Con: Heater temperature is either off or 200 degrees. It is very easy to overheat the material, for example damaging 183M. The band is easily damaged. It heats only a very narrow band of area around the metal, so product must be mixed while heating.

Available at Grainger, www.grainger.com.

BARREL BLANKETS

Pro: Variable or pre-set thermostats available. Very resilient and hard to damage. Covers and heats the entire barrel. Not as important to mix while heating.

Con: Cost in the \$500 range.

Available at www.powerblanket.com.

BARREL BLAZER

Pro: Pre-set thermostat. Extremely durable. Barrel is placed on top of heater plate and the barrel is heated from the bottom. This causes a natural convective loop to occur that minimizes the need for mixing while heating.

Con: Cost in the \$500 Range.

Available at www.sprayworksequipment.com.

RECIRCULATE MATERIAL THROUGH PROPORTIONER HEATERS

Pros: Cost \$0.

Cons: Cold material is drawn in from bottom of barrel and warm material is deposited in the top. Material must be mixed while heating. There is also no way to maintain temperature once application begins, therefore material starts to cool as soon as recirculation ends.



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