Johns Manville

A Berkshire Hathaway Company

INITIAL PROCESSING PARAMETERS
JM CORBOND® OPEN-CELL SPRAY POLYURETHANE FOAM

Suggested Processing Parameters

Drum Storage Temperature	65°-85°F (18°-29°C)
Drum Preheat Temperature	85°-95°F (29°-35°C)
Surface Temperature	32°-130°F (0°-54°C)
Proportioner Temperature	110°F - 140°F (43°C-60°C)
Hose Temperature	110°F - 140°F (43°C-60°C)
Agitation (B side only)	continuous
Proportioner Pressure (Dynamic)	1,200 psi (8,274 kPa)

Storage

JM Corbond oc Part A and Part B should be stored between 65-85°F.
JM Corbond oc side B has a 6 month, and JM Corbond oc side A has a 12 month shelf life, when properly stored.

Drum Temperature

Material should be heated from the storage temperature (65-85°F) to the preheat temperature (85-95°F) by circulation through the proportioner and hoses. This is done by setting the machine heaters at 110°-140°F and then pumping the material through the proportioner and back to the drums via circulation lines or a re-circulation manifold for 30-45 minutes. Extreme caution must be used to avoid cross-contamination. See “JM Corbond SPF Change-Over Procedure” for more information. Alternatively, material may be heated by placing in a conditioned room for two days before use.

Mixing/Recirculation

JM Corbond oc side B should be mixed on high speed for 30 minutes prior to application. If recirculation is being used as a means of heating the material in the drum, the drum should be agitated for 3-5 minutes before beginning recirculation. Adequate mixing is critical to successful application. Continue mild agitation throughout the application process.

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Temperature Settings

110-140°F A and B primary heater
110-140°F Hose heat

The temperature settings are a guideline and ambient and substrate temperatures may require settings outside of the suggested window.

Humidity

Care should be taken if the relative humidity is greater than 80%. Excessive humidity will adversely affect system performance and physical properties.

Pressure Settings

The finished foam properties are affected by both temperature and pressure settings. The goal of 1200 psi at the gun when the trigger is pulled is an important part of proper mix. To meet this you must take into account the pressure drop from the machine to the gun. A rough rule of thumb (depending on several parameters) is that the pressure will drop approximately 1 psi per foot of hose. Therefore, set the pressure at the machine so that when the trigger is pulled, the pressure maintained is the target gun pressure plus the pressure drop across the hose length. For example, a machine with 260 feet of hose should have a dynamic spray pressure of 1460 psi.

Example Calculation:

$$\text{Pressure Setting (psi)} = \text{Gun Pressure Target (psi)} + \frac{1.0\ \text{psi}}{\text{ft}} * \text{length of hose in ft}$$

$$= 1200\ \text{psi} + \frac{1.0\ \text{psi}}{\text{ft}} * 260\ \text{ft}$$

$$= 1200\ \text{psi} + 260\ \text{psi}$$

$$= 1460\ \text{psi}$$

Pass Thickness

JM Corbond oc may be applied in passes of uniform thickness from a minimum of 1". Open cell spray foam is very different from closed cell spray foam. Because the cells are open, the finished product doesn't retain heat and the need to limit pass thickness goes away. The greatest limiting factor in pass thickness with open cell is that if the applicator attempts to spray back into the rising foam, the foam will blow out of the cavity. Given the right conditions a pass thickness of as much as 12" may be possible. Cooling time between passes is not necessary.

Shut Down

For breaks in application between 15-60 minutes:

1) Grease spray gun according to the manufacturer's instructions.
2) Upon start-up, recirculate for 5 minutes to ensure that material in the hose is uniform.
3) It is recommended that breaks are rotated and the gun handed off to an alternate applicator as opposed to interrupting spray.

For breaks in application longer than 60 minutes:

1) Park the proportioner according to the manufacturer's instructions.
2) Purge all material from the spray gun.
3) Grease the spray gun according to the manufacturer's instructions.

Partial Drum Pour-up

Residual materials should be thoroughly mixed to ensure homogeneity before transferring to other drums for storage.