

## BASF ENERTITE<sup>®</sup> NM (No Mix) Process Procedures

### General Information

- Two-part equipment designed to properly process spray polyurethane foam (SPF) compounds are required. The application equipment, such as Graco equipment, must be designed to safely install and mix the liquids to form spray polyurethane foam.
- It is not required to mix or recirculate the B component for this foam system prior to processing.
- Recommended operating temp: **120°F (Optimum) to 145°F** for the A and B primary heaters and heated hose with an operating variance range of +/- 5° F as adjustments are needed. Depending on ambient conditions, the operating temps can be as low as 100°F.
- Pressures for A/B: **800 psi minimum to 1100 maximum psi range while pulling the trigger.**
- Foam should not be sprayed at ambient temperatures or to targets that are below 40°F in temperature reading. Proceed at your own risk and use flash passes to avoid pulling away.
- Temperatures at or below 60°F or any substrate target that is a “heat sink” requires a flash pass (½” thick) to optimize the second lift of open-cell material.
- Most SPF materials and applications perform better under warmer ambient and target temperature conditions.

### Process Requirements

- Graco spray foam guns capable of 2.3-6.8 kg/min (5-20 lb/min) output.
- Dry air is required to be used to supply SPF guns.
- Primary heaters and hose heat capable of maintaining operating temps during application.
- Drums properly stored in clean, dry area between the temperature ranges of 50-80°F.

### Application Techniques

- ENERTITE NM must be applied by qualified applicators. Properly processed ENERTITE NM compounds will produce a high quality polyurethane foam representative of the Technical Data Sheet (TDS), when applied in accordance with BASF’s instructions and industry practices. Consult TDS for physical properties.
- The normal application temperature range for ENERTITE NM is 40°F and warming to 120°F. If it is sprayed at lower temperatures, there is a risk that the adhesion between the foam and substrate may be affected.
- Ensure that the substrate is clean, dry and sound before spraying.
- Only apply the product inside the building envelope.
- Can be applied up to 6” per pass or lift. For best performance and appearance e.g., no voids or rollover, the maximum pass thickness is 6”.
- Additional passes will adhere to the initial passes. Allow a minimum of 5 minutes of cooling time in between each lift.
- Preferred spraying is from side to side of the cavity, but it can be sprayed vertically.
- Passes wider than 2’ should be avoided.
- Gun tip distance should be 12” to 18” from the target (substrate).
- Overlap a minimum of 50-70% between passes, adjusting arm speed and distance of gun from target.
- Fill stud with completely mixed material – lap onto studs to prevent voids at sides.
- Never spray additional SPF onto rising SPF in order to avoid possible excessive heat build up within the foam material that could potentially lead to a fire and/or odor issues.
- It is recommended to spray every other stud or rafter cavity to facilitate trimming. Once those cavities have been trimmed, fill in the remaining cavities.
- Allow 10 to 15 minutes before cutting.

## Special Notes

- Going from the ENERTITE NM to any BASF's closed-cell material or vice versa only requires a few special steps. One material can be pushed through the lines with the other. The material can be either **bled out** or **sprayed out**.
  - If material is **bled** out, please note that for every 50 feet of hose, there is approximately ½ gallon of material in each hose section. Where one is pushing out, there will be some cross contamination of the two resins. The bled material can be re-used as long as cross contamination has not occurred.
  - If material is **sprayed** out, purge the cross-over material out onto poly or cardboard until you get to the material you are intending on spraying. Once you think that you have all of the first material out of the system, you will need to do a quality check prior to begin spraying the foam into cavities.
- **CROSSOVER MATERIAL SPRAYED IN THE WALL CAVITY SHOULD BE REMOVED IMMEDIATELY BEFORE CONTINUING.** Dangerous exotherm can be reached if the crossover material is sprayed too thick (> 2 inches in a single pass).
- If transitioning from ENERTITE NM to another manufacturer's closed-cell resin, flushing is required. Follow any flushing or processing guidelines required by that manufacturer.
- All areas that are sprayed incorrectly or result in A only material, B only material, improperly mixed or off ratio materials, too thick of an application or too quick of a thickness build up, are to be removed and replaced with properly processed spray foam. All cleaning solvents and others materials are to be captured and properly disposed of and not left at the job site.
- ENERTITE NM is not designed for use as an exterior roofing system and is not intended for cold storage structures such as coolers and freezers. High humidity rooms, such as pools, demand special design considerations with regard to thermal insulation and moisture-vapor drive.

## Protecting Yourself

- Proper planning of the spray application must be done prior to starting the job, including wearing PPE (personal protective equipment). Considerations for overspray protection, site control of non PPE protected people, anticipated application and other general construction considerations must be considered well in advance to the start of the spraying job.
- Provide proper ventilation and isolation of the spray area in order to ensure no entry or exposure by other trades or occupants, during the spray period and after completion while the materials cure.
- Please reference the *"EPA ventilation guidance document"* and all industry guidelines on health and safety issues found at: [www.spraypolyurethane.org](http://www.spraypolyurethane.org) and on the Spray Polyurethane Foam Alliance ([www.sprayfoam.org](http://www.sprayfoam.org)) website. Consult the ENERTITE NM Technical Product Data Sheet and MSDS before using the product.
- When spraying a spray polyurethane foam system indoors, sprayers and helpers should wear:
  - A NIOSH approved full face or hood-type supplied air respirator (SAR), as outlined in your company's Respiratory Protection Program.
  - Chemically-resistant gloves (e.g., nitrile), or fabric gloves coated in nitrile, neoprene, butyl or PVC.
  - Chemically resistant long-sleeve coveralls or chemically resistant full body suit with hood.
  - MDI-resistant fitted boots/booties.

**SPRAYERS CANNOT HAVE ANY EXPOSED SKIN.**

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