

Using Foamed Materials for Bonding and Sealing Demo Card



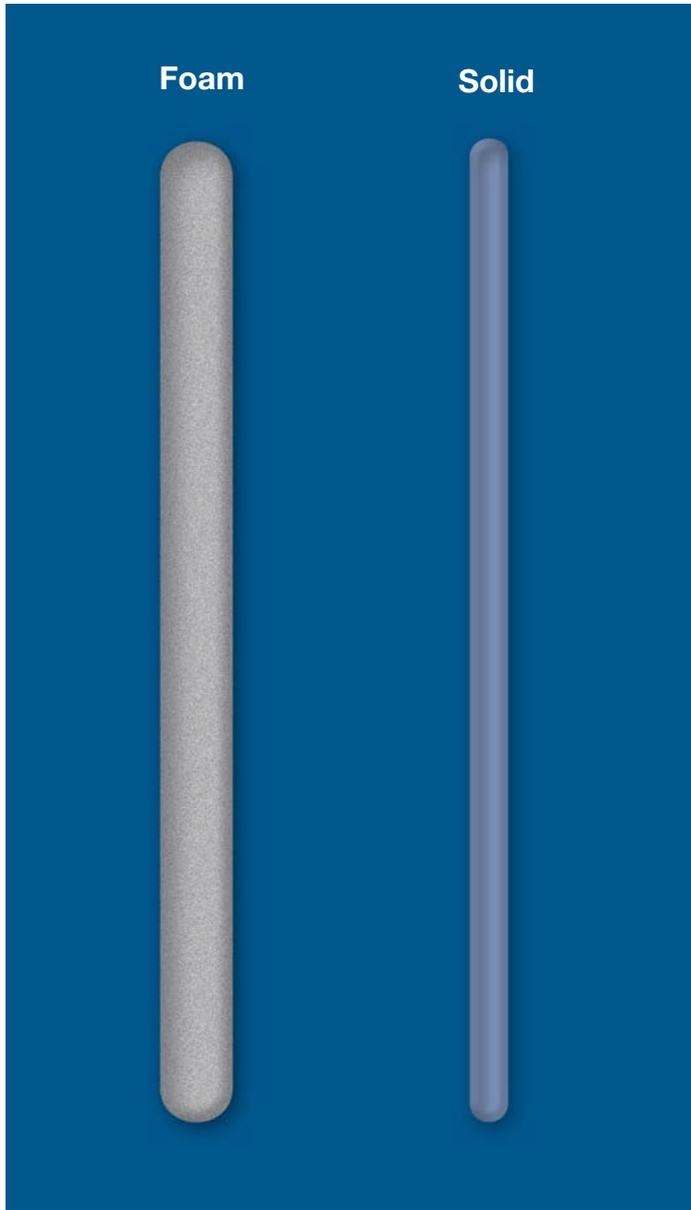
Hot melt materials are commonly used in automotive assembly for bonding of sound deadening material (shoddy pad), carpet, foam blocks and fabrics to various types of plastics, compressed wood and fiberglass. The material, including EVA, polyamide, APAO and pressure sensitive-based products, can be applied as a bead or in a swirl spray to meet specific application requirements.

Nordson foamed dispensing systems dramatically improve the performance of most hot melt adhesives by mixing them with inert gas, creating a homogenous solution. As the material is dispensed, the gas expands to create a closed-cell foam. The foamed material is applied like the more conventional approaches, but provides the benefits of:

- **Increased Open Time:** Nitrogen bubbles insulate the material, increasing the work time and offering great flexibility.
- **Faster Set Time:** Foamed materials require less force to compress, producing a thin bond line. The thin bond line decreases set time of material for better production rates.

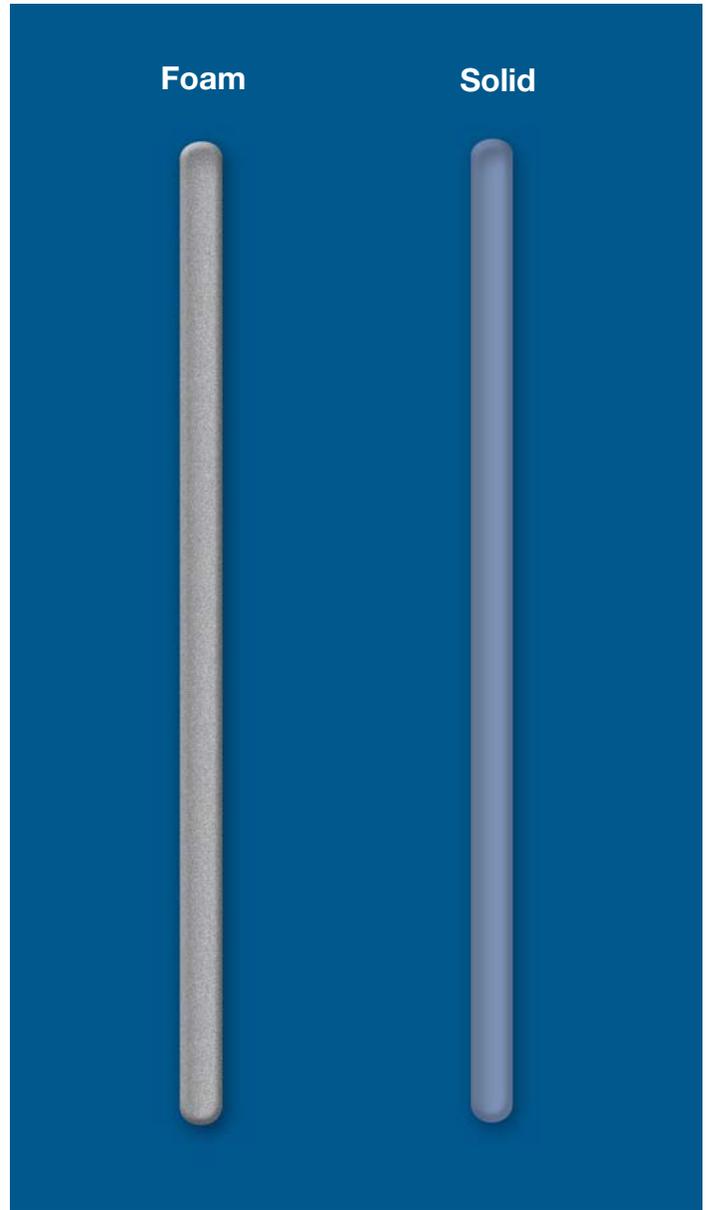
- **Volumetric Increase:** Increased volume has better gap-filling capabilities to improve bond strength.
- **Reduced Adhesive Consumption:** Foaming can reduce material consumption up to 65 percent, depending on the hot melt material.
- **Increased Penetration:** Foamed hot melt penetrates porous materials for a stronger bond.
- **Improved Wetting:** Foam requires less force to compress, allowing penetration of impervious surfaces to enhance application versatility.
- **Lower Heat Density:** Foamed hot melt materials reduce thermal distortion of temperature sensitive substrates and improve operator safety.
- **Reduced Sagging or Running:** Thixotropic nature of foamed materials reduces tendency of material to run or sag on sloped surfaces.

Increased Volume



Foam produces twice the volume but the same weight as solid material.

Material Savings



Foam produces the same volume at up to 50% less weight than solid material.

For more information, talk with your Nordson representative or contact your Nordson regional office.

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