Porous Coat® System

Random coating and laminating patterns of hot melt adhesives produce breathable materials, open-weave goods and other substrates.



The patented Porous Coat system applies discrete, random and open patterns of hot melt adhesive to substrates in narrow- or wide-web applications. The unique surface application provides excellent bonding as well as reduces adhesive use and cost. Coated webs demonstrate soft hand and drape properties.

Conventional processes using powders, pastes or films require ovens or other heat sources to heat the material after application. These processes require the coordination of temperature and dwell time for curing, thus slowing production speeds. Additionally, conventionally heated/melted material can penetrate deep into or through the web, resulting in low bonding efficiency and higher product costs.

Nordson's Porous Coat system uses innovative extrusion die technology to dispense thin, breathable coatings of PSAs and EVAs to the surface of a wide variety of webs including nonwovens, open-weave goods and films.

Real-time adjustability supports pattern widths from 5/8 in. (15 mm) up to 10 ft (3.05 m) in 5/8 in. (15 mm) increments and coating weights of 0.6 gm/m 2 to more than 4 gm/m 2 for a broad range of hot melt adhesives. Pump speeds compensate automatically for changes in pattern width and line speed.

The Porous Coat system uses an innovative extrusion applicator design that incorporates a series of hydraulic compartments that are fed by dedicated positive-displacement gear pumps. This allows the system to apply a wide variety of uniform, diffuse coatings over a broad range of coating weights and patterns.

The applicator is paired with a GP pump station. The positive-displacement, AC-drive gear pumps feature closed-loop motor controls to provide consistent output keyed to line speed.



Porous Coat® System





VersaBlue® melters provide cost-effective use of hot melt materials that can be applied to the surface of the web, reducing adhesive consumption by up to 30 percent while providing excellent bonding. VersaBlue melters support real-time pattern width and coating weight adjustability without stopping production. And, VersaBlue melter programming means fewer operator adjustments resulting in consistent patterns and less downtime.

VersaDrum® melters offer the same benefits of the VersaBlue melter and support increased productivity of line speeds up to 2624 feet (800 meters) per minute, assuring a continuous adhesive supply.

Product Specifications

Operating Speed: 2624 ft (800 meters) per minute maximum

Control Panel: 230 volts, single phase

Temperature Range: 75° to 450°F (29° to 232°C)

Coating Widths:

Minimum: 5/8 in. (15 mm)
Maximum: 10 ft (3.05 m)

Coating Weights:

Minimum: 0.6 g/m^2 Maximum: $>4 \text{ g/m}^2$ For more information, speak with your Nordson representative or contact your Nordson regional office.

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