



NONWOVEN TERMS

For the informed employee

Chemical Bonding—Foam

Chemically bonding nonwoven fibers is accomplished by applying liquid binders to the dry nonwoven fibers. These binders are often some type of acrylic polymer. In simple terms, a variant of Elmer's Glue. One method of applying the binder to the fibers is through the use of foam. The necessary chemicals are mixed with water and pumped to a foam generator. The foam generator froths the liquid into a consistent foam with small bubbles. The foam is then piped to the foam applicator often consisting of two rolls forming a nip. The foam is dispersed across the width of the nip usually with an oscillating pipe. The nonwoven fiber web runs through the nip and is saturated by the foam. The gap in the nip can be varied to determine how much foam is applied. Two other variables in the foam are the amount of solids and the amount of air.

Some of the advantages to using foam to apply binder chemicals are:

1. The amount of water applied is much less than using other liquid application methods. That means it takes much less energy to dry the nonwoven fabric.
2. Ability to process a wide variety of dry web weights.
3. Finished nonwoven fabric has higher loft.
4. Less possibility of binder migration during the drying process.

Turtzschler Foam Pad



Photo credit: http://nonwovens.megabit.net/Product_Range_Nonwovens/Bonding/Chemical_Bonding/



AutoFoam Foam Generator

Picture credit: <http://www.autofoam.co.uk/en/generator.html>

“Life is what you make of it. Always has been, always will be.”

Grandma Moses

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