Chemically bonding of nonwoven fibers using latex was one of the earliest methods for making nonwoven fabric. One way to accomplish this involves using a roll with an engraved surface. This type of roll is called an anilox roll. The surface is usually engraved with lines or cells that pick up the liquid binder as the roll revolves in a shallow pan. Excess binder is wiped off by a doctor blade. The volume of binder carried by the roll as it turns past the doctor blade is determined by the size and shape of the lines or cells engraved on the roll’s surface. So, essentially an anilox roll is a metering device to apply liquid to a nonwoven web.

Anilox rolls used in the nonwovens industry are usually precisely made steel rolls that are covered with copper. The copper is mechanically engraved with the proper pattern and then the roll is chrome plated to make the surface of the roll hard and wear resistant.

The excess liquid on the surface of the roll is wiped off by a device called a doctor blade. Doctor blades can be made from many types of metal or plastic. The material is usually dependent on the viscosity of the liquid, speed of the machine, and chemical composition of the liquid.

“Great things are done by a series of small things brought together.”

Vincent van Gogh