

HOW VELCRO WAS DISCOVERED

In the early 1940's, Swiss inventor George de Mestral went on a walk with his dog...

Upon his return home, he noticed that his dog's coat and his pants were covered with cockleburs. His inventor's curiosity led him to study the burrs under a microscope, where he discovered their natural hook-like shape

This was to become the basis for a unique, two-sided fastener - one side with stiff "hooks" like the burrs and the other side with the soft "loops" like the fabric of his pants. The result was VELCRO® brand hook and loop fasteners, named for the French words "velour" and "crochet."

HOW IS HOOK AND LOOP MADE?

While there are many different combinations of adhesives, materials and processes used in the production of Hook and Loop we will focus on some of the basics.

What is Loop made of?

The Loop is woven out of a lighter Denier Nylon than Hook

(Denier: A weight per unit length measurement. The weight in grams of 9,000 meters of the material)

There is no real special process for the Loop material. Anyone can manufacture or duplicate Loop.

The Loop is first woven to the Greige material stage

(Greige: An unfinished fabric just off the loom or knitting machine)

Then it is blocked on a Pancake.

(Pancake: A roll of full width woven product)

The Pancake is then ready for the Dyeing process.

The dyes are applied by circulating the required color through the product using heat and pressure. Once the product has been thoroughly dyed it is then rinsed to remove the impurities and sets the dyes.

The dyeing process also relaxes the tension in the product and allows it to hold its shape.

There are 2 different styles of Loop:

Napped Loop is made by raising the surface fibers of a fabric by passing the surface over rapidly revolving cylinders covered with metal pins.

This style is the most popular used due to the randomness of the fibers and allows a greater contact to the Hook. This in turn relates to greater bonding strength of Hook to Loop.

The other style is unnaped.

The disadvantage is that this loop is initially weaker but gets stronger with each time the Hook is disengaged. Sort of like manually napping.

Binder Coating

The binder coating is a type of transparent adhesive used for ALL woven Hook and Loop products.

It's purpose is to "Anchor" the yards together so when we don't pull out the yarns during cycling and prevents fraying.