

Forming a Sustainable Future



Nanoparticle technology delivers long lasting energy-saving surface treatment.

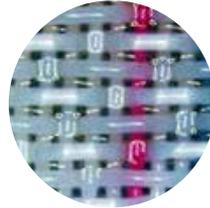
Nanotechnology, the manipulation of matter at the “nano scale” of one-billionth of a meter, is helping create products with unique properties. AstenJohnson utilized this science to develop a surface treatment for forming fabrics called ArmorTec® that improves the effectiveness of cleaning showers and saves energy. Forming fabric contamination compromises performance, blocking water drainage paths and creating light spots or pinholes in the paper sheet. Papermakers using ArmorTec® are seeing a noticeable reduction in the build-up of pitch and stickies.

Microscopic Bumps

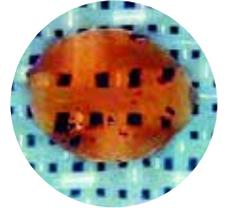
ArmorTec® uses nanotechnology and the micro fine treatment ensures that there is no measurable loss of air permeability in the fabric. The armor-plated surface creates a large number of minute contact points or “microscopic bumps” where water, oil, and small contaminants can accumulate and “bead up” rather than transfer to the internal structure of the fabric. The dynamic action of the running fabric forces beads to roll off under their own weight. When vacuum or pressure pulses are applied, the water beads move completely through the fabric, leaving the interior surfaces dry.

ArmorTec® maintains its effectiveness over the fabric’s life as the individual yarns on both the fabric surface and within the internal structure are coated, ensuring that the stay clean properties are not diminished by surface wear.

Oleophobic Effectiveness

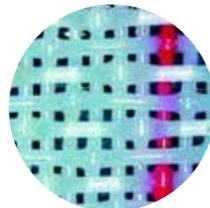


OIL ON FABRIC WITHOUT ARMORTEC



OIL ON FABRIC WITH ARMORTEC

Hydrophobic Effectiveness



WATER ON FABRIC WITHOUT ARMORTEC



WATER ON FABRIC WITH ARMORTEC



Papermakers have also noted that an added benefit of ArmorTec® is a safer working environment due to a lower requirement to clean forming fabrics with high-pressure washers during machine operation.

For more information on how ArmorTec® can help with energy savings in your forming section, please contact your local AstenJohnson sales representative.

