

## PROTECTION - SCIENCE AND TECHNOLOGY ADVANCES FOR CHEMICAL AND BIOLOGICAL PROTECTION

### Meltblown Coform For Chemical Protection Applications

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Coform is a process whereas particles are injected into a fiber stream before the nonwoven web formation. It provides several advantages over adding particles to an already formed fabric or a packed bed. In the first case, coform fabrics can reach higher loading, much lower shedding and better uniformity through the thickness. Compared to a packed bed, coform fabrics have higher stability and higher air permeability (breathability). The main limitation is that the particle size needs to be greater than 250  $\mu\text{m}$  or the particles will get airborne.

We have been working on 2 applications: one is a fabric heavily loaded with activated carbon, for use in respirator cartridges, the other is a flexible, lightly loaded structure with either MOF or Zirconia, for use as a protective layer in a chemical protection suit.

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