

# H41 FIRE HOODS-FIREDEX

## Scientific Data

The H41 Interceptor™ **blocks 95% of particulates at .2 micron in size** or larger. For perspective, there are 25,400 microns in one inch and a human hair is about 75-100 microns wide, so a .2 micron particulate is about 500x smaller than a strand of hair. Testing has shown that the particulates sized at less than .2 microns don't have enough mass to make it through the double layer knit and the Nomex® Nano Flex; essentially meaning that this hood **blocks 100% of particulates less than .2 microns**.

Nomex® Nano Flex is a revolutionary new material that can block fine particulates almost as well as an impermeable membrane. Unlike FR moisture barrier membranes however, this new lightweight (0.5oz/yd<sup>2</sup>), "barely-there" material is actually completely breathable; Nomex® Nano Flex is a non-woven, web technology, made of submicron continuous fibers.

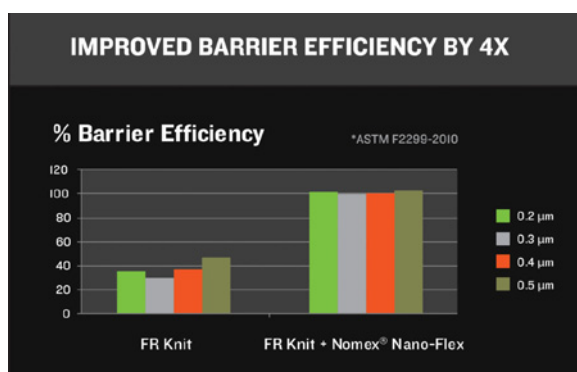
This data demonstrates how very thin, light, and breathable this material is, while still being able to effectively filter particles:

### NOMEX® NANO-FLEX™

NONWOVEN WEB TECHNOLOGY

A new technology providing superior particle barrier protection, breathability and a lightweight, flexible solution that you hardly know is there.

| PROPERTIES & BENEFITS   | FIBER TYPE COMPARISON   |         | Nomex® Nano-Flex |
|---|---|---------|------------------|
| <ul style="list-style-type: none"> <li>Particle Barrier</li> <li>Thermal Insulation</li> <li>Comfortable</li> <li>Laundry Durable</li> <li>High Porosity</li> <li>High LOI Polymer</li> <li>High Capillary Force</li> <li>Light &amp; Thin</li> <li>High Air Perm</li> <li>Submicron Pores</li> </ul> | <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>Nonwoven</p> </div> <div style="text-align: center;"> <p>FR Moisture Barrier Films</p> </div> </div> |         |                  |
|   | PROPERTY  |         |                  |
|   | Basis weight, oz/yd <sup>2</sup>  | 1.5-2.3 | 4-6              |
|   | Porosity, %   | 90      | 30-50            |
|   | Mean Pore Size (micron)   | 40-60   | <0.1             |
|   | Air Permeability, cfm   | 300-360 | Impermeable      |
|   | (1) Knit fabrics used in conjunction with Nomex® Nano Flex are ~7-9 oz/yd <sup>2</sup>  |         |                  |



Additionally, adding Nomex® Nano Flex inside the hood's 2 layers gives the hood nearly a 25% boost in TPP, despite being a mere 0.5 oz/yd<sup>2</sup>.

The data set to the right demonstrates the remarkable difference in particulate blockage from a standard FR Knit Hood to an FR Knit Hood with Nomex® Nano Flex (measuring from 0.5-0.2 microns).

