## **ANCI Composites™**HPE™ Filtration Media

## What is HPE™?

 $\mathsf{HPE}^{\mathsf{TM}}$  is a bi-component spunbond nonwoven fabric where the individual fibers have a layered structure, and a polyester core with polyethylene sheath on the outside. The innovative manufacturing process of  $\mathsf{HPE}^{\mathsf{TM}}$  gives the nonwoven fabric exceptional tensile properties, breathability, and microbial resistance.

The various features of HPE™ allow the material to have unique properties that outperform the industry standard material used in packaging, filtration, medical products and various applications where high strength nonwoven fabric is necessary.

Multi-layered product ensures web uniformity and an end product that does not easily fray from edges



Heat sealable to itself along with other nonwovens and films



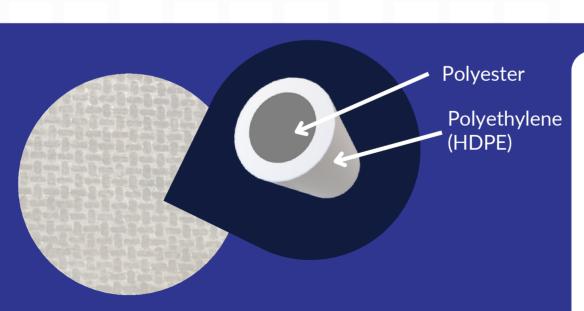
Water-repellent and chemical resistant properties



High abrasion resistance



Lightweight while maintaining **high** strength



## **COMPOSITION**

Each fiber in HPE<sup>™</sup> features a double-layered structure with a polyethylene sheath and polyester core, enhancing tensile and tear strengths by 1-5x over industry norms. HPE<sup>™</sup> is suitable for gamma radiation, ethylene oxide, electron beam, and steam sterilization.

## **Typical Properties**

HPE™ Filtration Media									
Properties		HPE20	HPE40	HPE50	HPE60	НРЕ70	HPE80	HPE90	HPE100
Basis Weight (g/m²)		20	40	50	60	70	80	90	100
Thickness (mils)		1	2	2	3	3	4	5	6
Grab Strength	MD	33.7	66.9	80.6	122.2	114.9	121.3	123.9	148.7
	CD	13.7	27.7	44.4	72.3	62.2	64.6	81.3	95.8
Trapezoidal Tear (lbs)	MD	4.4	7.7	14.4	10.9	13.3	16.6	13.9	19.3
	CD	3.0	2.7	4.0	3.4	3.8	4.3	4.5	4.9
Elongation	MD	56.3	60.5	52.8	62.7	74.4	62.1	58.1	62.3
	CD	73.1	69.0	76.3	88.7	92.1	86.5	91.7	90.1
Mullen Burst (psi)		37	53	66	77	80	90	99	101
Hydrohead (cm)		4.5	10.9	16.2	16.5	19.4	21.5	17.6	35.0
Mean Flow Pore (microns)		102.37	-	38.17	26.11	-	-	16.9	-
TSI (% penetration of 0.3 microns, NaCl)		-	93.8	92.3	91.5	-	83.8	80	-
TSI (resistence pa)		-	12.3	15.6	46.2	-	224	313	-



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