

RET BREATHABILITY

To be comfortable, harnesses must stay dry and breathable when submitted to sweat.


PURPOSE OF TEST

Test padding material against water vapor resistance. (Ret)

A lower water vapor resistance means a lower barrier to water vapor. This proves the material is breathable and more comfortable to wear.

QUALITY	PARAMETERS	
	Composition	Polyester + PET monofilament
	Thickness	0.14'
	Weight	1.15oz/ft ²
	Full Width	61.02'
	Color	Pantone14-0446TCX

The H700 is made of composite 3D warp knitted fabric.

QUALITY	PARAMETERS	
	Composition	PET monofilament
	Melting point	265°C
	Thickness	0.47'
	Weight	2.79oz/ft ²
	Full Width	86.61'
Color	Black	

TEST METHOD

An electrically heated porous plate is covered by a liquid water-vapor permeable membrane. Water fed to the heated plate evaporates and passes through the membrane as vapor, so that no liquid water contacts the test specimen. With the test specimen placed on the membrane, the heat flux required to maintain a constant temperature at the plate level is a measure of the rate of water evaporation, and from this the water-vapor resistance of the test specimen is determined.

Reference - ISO 11092-2014.

TEST RESULTS SHOULDER PADDING	
TEST SAMPLES	Ret(M ² .Pa/W)
H700	3.41
NBA 1	19.4
NBA 2	21.1

TEST RESULTS WAIST PADDING	
TEST SAMPLES	Ret(M ² .Pa/W)
H700	9.51
NBA 1	74.2
NBA 2	11.4

NBA = Next Best Alternative on the market.

RET value = evaporative resistance of one unit area of a material. The lower the RET value, the cooler the material feels on the body.

CONCLUSION

Compared with NBA 1 and NBA 2, the H700 padding material has the lowest water vapor resistance, the best breathability.

