

Test item: Water Vapor Resistance

Date: September 26,2021

Test condition: ISO 11092:2014

1. Air temperature: $35.0 \pm 0.1^{\circ}\text{C}$
2. Relative humidity: $40 \pm 3\%$
3. Air speed: 1.0 ± 0.05 m/s
4. Temperature of hotplate: $35.0 \pm 0.1^{\circ}\text{C}$
5. Orientation of test specimen: Specimens lied flat across the measurement unit with the side normally facing the human body towards the measuring unit. Fabric back side (skin contact side) is in contact with hotplate.

Sample Description	:	(A)15.5cm*23cm H700 waist padding (B)15.5cm*23cm NBA1 waist padding (C)15.5cm*23cm NBA2 waist padding (D)Red impermeable film with a 15.5cm*23cm hole
Sample Color	:	(A)Black/green;(B)Grey/blue;(C)Black/blue;(D)Red
Testing Period	:	Sep 17, 2021 - Sep 26, 2021
Test Result(s)	:	Unless otherwise stated the results shown in this test report refer only to the sample(s) tested, for further details, please refer to the following page(s).

Test Results:

Specimens	A+D_specimen1	A+D_specimen2	A+D_specimen3	A+D_mean
Unit(m ² ·Pa/W)	11.951	11.610	12.126	11.9



Specimens	B+D_specimen1	B+D_specimen2	B+D_specimen3	B+D_mean
Unit(m ² ·Pa/W)	67.037	75.219	87.386	76.5



Specimens	C+D_specimen1	C+D_specimen2	C+D_specimen3	C+D_mean
Unit(m ² ·Pa/W)	12.313	12.320	16.682	13.8



Remark:

1. Water-vapor resistance R_{et} , a quantity specific to textile materials or composites, determines the latent evaporative heat flux across a given area in response to a steady applied water-vapor pressure gradient.
2. The evaporative heat flux may consist of both diffusive and conductive components.
3. The lower the evaporative resistance, the easier the water vapor transmission and more comfortable the clothing should be to wear.

Notes: Since the test specimens are much smaller than the standard required which is 50cm*50cm, it is necessary to amount the specimens in an impermeable red material, as is shown in the pictures. The results below represent only the R_{et} of the padding in the center, do not include the R_{et} of red film.

A+D-D	9.51
B+D-D	74.2
C+D-D	11.4