

**KAKEN****Kaken Test Center** GENERAL INCORPORATED FOUNDATION

UENO BLDG, 1-9-10 HORIDOMECHO, NIHONBASHI CHUO-KU,

TOKYO 103-0012 JAPAN

Tel: +81-(0)3-3661-5618, Fax: +81-(0)3-3661-1592

No.2/3

Test Item		Result		Test Method
		②		
Ultra Violet Protection Factor (UPF)	Rated UPF	40		AS/NZS 4399: 1996, A band-pass filter sets between integrating sphere and detector.
	UVR Protection Category	Excellent protection		

Test Item		Result		Test Method
		②		
Absorbency (sec)		1		JIS L 1907 Dripping Method Applied side : Back

Test Item		Result		Test Method
		①	②	
Sweat-stained Tendency	CC	2-3	3-4	Assessed color change between wet part and dry part. Applied side : Back

Test Item		Result		Test Method
		②		
Warm & Cool Feeling: the Maximum Heat Absorption Rate (Q-MAX) (J/cm <sup>2</sup> · sec)		0.292		Precise and Prompt Thermal Property Measuring Instrument(KES-F7 A Thermo Labo II Type), Condition: 20°C × 65%RH, Difference in Temperature Between a Temperature Detector and a Test Specimen: 20°C Applied side : Back

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Kaken Test Center is formerly named as "Japan Synthetic Textile Inspection Institute Foundation(JSTIIF)".

No.1/3

Certificate No. : TH-18-011507-1

Date : June 6, 2018

**TEST CERTIFICATE**

Requested : hap co.,Ltd

Test Samples : Cut and sewn (30//Cotton 100% plain knit) ①Before, ②After cotton 100%

Test Item : Absorbency, etc.

Received : June 4, 2018

**This is to certify that the results of laboratory test applied on the sample are as follows:****1. Test Results**

Test Item		Result		Test Method
		②		
Pilling Resistance		4.5		JIS L 1076 Method A 5 hours

Test Item		Result		Test Method
		②		
Protect Rate of UV Light(%)	Protect Rate of UV Light	97.9		Standard Method to Assess the Finishing Effect of UV protective materials, Apparatus by Japan Chemical Fibers Association, A band-pass filter sets between integrating sphere and detector.
	Transmissivity @305nm	2.0 (Reference)		
	Transmissivity @360nm	2.1 (Reference)		

**Kaken Test Center**

GENERAL INCORPORATED FOUNDATION

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# KAKEN

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No.3/3

Test Item	Result	Test Method
	②	
Antibacterial activity value	5.7	JIS L 1902: 2015 (Absorption method) Test bacteria: <i>Staphylococcus aureus</i> NBRC 12732 Suspension: Prepared with surfactant(Tween 80)

Test Item	Result	Test Method
	②	
Anti dust mite activity (repellent effect)(%)	0.5	JIS L1920: 2007 Test organisms: <i>Dermatophagoides pteronyssinus</i> (Strains originated from Tokyo women's medical university)

Test results are transcribed from the undermentioned report.  
TH-17-054822-1(February 1.2018)

### 2. Samples

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Kaken Test Center General Incorporated Foundation  
Horidome Laboratories  
(S.Yamaguchi)

Inspector : S. Yamaguchi

Period.