



เรียนรู้เพื่อรับใช้สังคม

มหาวิทยาลัยหัวเฉียวเฉลิมพระเกียรติ

HUACHEW CHALERMPRAKIET UNIVERSITY

18/18 ถนนพหลโยธิน กม.18 (บางนา-ตราด) แขวงพลับพลา เขตเมืองปทุมธานี 10540

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มคอ.รท.016



AATCC 30 – 2004 part 3

Test Samples

Sample A1: woven (cotton:ZnO polyester 55:45)

Sample A2: woven (cotton:polyester 55:45)

Sample B1: circular knitted fabric (cotton:ZnO polyester 55:45)

Sample B2: circular knitted fabric (cotton:polyester 55:45)

Sample C1: dyed knitted fabric (cotton:ZnO polyester 60:40)

Sample C2: dyed knitted fabric (cotton:polyester 60:40)

Test organism : *Candida albicans* TISTR 5779

Results

ตัวอย่างสิ่งทอ	การเจริญเติบโตของ ยีสต์ <i>Candida albicans</i> TISTR 5779	
	macroscopic growth	microscopic growth (100X)
A1 = woven (cotton:ZnO polyester 55:45)	-	-
A2 = woven (cotton:polyester 55:45)	-	+
B1 = circular knitted fabric (cotton:ZnO polyester 55:45)	-	-
B2 = circular knitted fabric (cotton:polyester 55:45)	+	+
C1 = dyed knitted fabric (cotton:ZnO polyester 60:40)	-	-
C2 = dyed knitted fabric (cotton:polyester 60:40)	-	+

+ growth

- no growth

Tested By

W. Powtongsook

Date January 23, 2019

(Worrapanne Powtongsook)

Faculty of Science and Technology

Huachiew Chalermprakiet University

TEST REPORT

NUMBER : BKKT17012557
DATE : 15-Sep-2017

APPLICANT : PERMA CORPORATION CO., LTD.
311 2ND FL., SOI CHOKECHAIJONGJUMROEN,
RAMA 3 RD., BANGPONGPANG, YANNAWA,
BANGKOK, 10120, THAILAND
ATTN : CHAO

SAMPLE DESCRIPTION : TWO (2) PIECES OF SUBMITTED SAMPLE SAID TO BE
SINGLE JERSEY KNITTED FABRIC IN
A) RAW WHITE#1 TK 32"
B) RAW WHITE#2 HTK 32"
DATE RECEIVED/DATE TEST STARTED : 04 Sep 2017
DATE CONFIRMATION : -
TESTING PERIOD : 04 Sep 2017 TO 12 Sep 2017
BUYER'S NAME : -
ORDER NO./PO NO. : -
STYLE NO. : -
ARTICLE NO. : -
COLOR : (A)RAW WHITE#1 TK 32", (B)RAW WHITE#2 HTK 32"
END USE : -
EXPORT COUNTRY : -

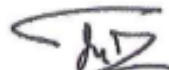
TEST CONDUCTED : AS PER THE REQUEST OF THE APPLICANT. FOR FURTHER DETAILS PLEASE
REFER TO ENCLOSED PAGE(S)

CONCLUSION :
BASED UPON THE SUBMITTED SAMPLE AND TEST RESULTS REPORTED,

LABELING OF UV-PROTECTIVE TEXTILES#	(A) #	(B) #
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NOTE : M - MEETS THE PROVIDED REQUIREMENT C - COMMERCIALY ACCEPTABLE
F - BELOW THE PROVIDED REQUIREMENT U - UNACCEPTABLE
* - NO SUBMITTED INFORMATION ‡ - NO COMMENT
NA - NOT APPLICABLE

AUTHORIZED BY
FOR Intertek Testing Services Ltd. [Bangkok]



THANATE KHONGYAI
LAB MANAGER/SOFTLINES DEPARTMENT

TEST REPORT

NUMBER : BKK17012557
DATE : 15-Sep-2017

TEST CONDUCTED (AS REQUESTED BY THE APPLICANT)

1. LABELING OF UV-PROTECTIVE TEXTILES#

AATCC 183-2014 ;

INSTRUMENT USED: CARY 100 CONC

WAVELENGTH RESOLUTION: 2 NM

SOLAR SPECTRUM IRRADIANCE USED: NOONDAY, JULY 3, SUNLIGHT, ALBUQUERQUE, NM.

NO. OF SCANS: 6

THE SAMPLES ARE TESTED IN DRY AND RELAXATION STATE.

(A)

		<u>Requirement</u>
THE MEAN ULTRAVIOLET PROTECTION FACTOR, UPF:	35.822	-
THE UV-A TRANSMITTANCE, T(UV-A):	8.843%	
THE UV-B TRANSMITTANCE, T(UV-B):	1.974%	
PERCENT UV-A BLOCKED:	91.157%	
PERCENT UV-B BLOCKED:	98.026%	

(B)

		<u>Requirement</u>
THE MEAN ULTRAVIOLET PROTECTION FACTOR, UPF:	44.328	-
THE UV-A TRANSMITTANCE, T(UV-A):	6.573%	
THE UV-B TRANSMITTANCE, T(UV-B):	1.593%	
PERCENT UV-A BLOCKED:	93.427%	
PERCENT UV-B BLOCKED:	98.407%	

REMARK:

#THE TEST WAS CONDUCTED BY SUBCONTRACTOR.

END OF THE TEST REPORT

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TEST REPORT

CLIENT:	PERMA CORPORATION CO., LTD. 311 2 ND FLOOR, SOI CHOKECHAIJONGJUMROEN, RAMA 3 RD., BANGPONGPANG, YANNAWA, BANGKOK 10120	REPORT NUMBER:	G 0816/51
		APPLICATION FORM No.:	-
		ISSUE DATE:	28/02/18
		PAGE:	1/2
DATE OF RECEIPT:	08/12/17		
DATE OF TEST:	08/12/17-28/02/18		
SAMPLE NUMBER	SAMPLE NAMES (AS SPECIFIED BY THE CLIENT)		
G 0814-1/51	KNITTING FABRIC COLOUR : GREEN		

TEST RESULT(S): REFER TO THE FOLLOWING PAGE(S)

COMMENT(S): BASED ON THE SUBMITTED SAMPLE(S) AND THE TEST RESULT(S)

ANTIBACTERIAL FINISHES ON TEXTILE MATERIALS : S

S = SEE THE ATTACHED RESULT(S)

REMARK(S): ANTIBACTERIAL TEST BEFORE WASHING REFERS TO REPORT No. G(R) 0814/61 DATED 07/02/18

AUTHORIZED BY



(MS. KANYARAT RANGSANGA)
(SCIENTIST)

145129

"การปล่อยรายงานผลการทดสอบ ไม่ว่าจะเป็นการปล่อยทั้งฉบับหรือแค่ส่วนหนึ่งส่วนใด หรือใช้รายงานผลการทดสอบปล่อย เป็นความผิดตามประมวลกฎหมายอาญา"

TEST REPORT

REPORT NUMBER: G 0818/61
APPLICATION FORM No.: -
ISSUE DATE: 28/02/18
PAGE: 2/2

G 0814-1/61			CLIENT'S REQUIREMENT
ANTIBACTERIAL FINISHES ON TEXTILE MATERIALS: AATCC TM 100: 2012			
TESTED MICROORGANISM:	0 HOUR (C)	24 HOURS (A)	% REDUCTION (R)
- <i>Staphylococcus aureus</i> ATCC 6538	1.8 x 10 ⁸	<100	>99.94
G 0814-1/61 (AFTER 150 WASHES) ⁽¹⁾			CLIENT'S REQUIREMENT
ANTIBACTERIAL FINISHES ON TEXTILE MATERIALS: AATCC TM 100: 2012			
TESTED MICROORGANISM:	0 HOUR (C)	24 HOURS (A)	% REDUCTION (R)
- <i>Staphylococcus aureus</i> ATCC 6538	1.4 x 10 ⁸	<100	>99.93

- REMARK(S): ⁽¹⁾ WASHING PROCEDURE
- TEST APPARATUS : AUTOMATIC WASHING MACHINE (WHIRLPOOL MODEL 3XGSC9455JQ)
 - WASHING PROCEDURE : NORMAL CYCLE, WASH LOAD BALLAST TYPE 1 (1.8 KG)
WASHING TEMPERATURE AT 60 ± 3 °C, TUMBLE DRY LOW
 - TYPE OF DETERGENT : 1993 AATCC STANDARD REFERENCE DETERGENT
 - TOTAL MASS OF THE SPECIMENS AND LOADING FABRICS : 1.8±0.1 KG
- ANTIBACTERIAL TESTING
- THE TEST SPECIMENS WERE STERILIZED BEFORE TESTING BY USING THE AUTOCLAVE AT 121 °C, 15 psi, 15 MINUTES.
 - % REDUCTION (R) = 100 (C-A)/C
 - WHERE: (A) = THE NUMBER OF BACTERIA RECOVERED FROM THE INOCULATED TREATED TEST SPECIMEN SWATCHES IN THE JAR AFTER "24 HOURS" CONTACT TIME.
 - (C) = THE NUMBER OF BACTERIA RECOVERED FROM THE INOCULATED UNTREATED CONTROL SWATCHES IN THE JAR AT "0 HOUR" CONTACT TIME.

145096

"การปลอมรายงานผลการทดสอบ ไม่ว่าจะเป็นการปลอมทั้งฉบับหรือแค่ส่วนหนึ่งส่วนใด หรือใช้รายงานผลการทดสอบปลอม เป็นความผิดตามกฎหมายอาญา"