



## BIOTECH TESTING SERVICES

### TEST REPORT

LAB NO. : 9782/ 1

DATE: 20/07/2016

**NAME OF CUSTOMER** : M/s. HEWI Heinrich Wilke GmbH  
**ADDRESS** : Postfach 1260,  
34442 Bad Arolsen  
Germany  
**REFERENCE** : Letter Ref.: AWE – 130716 FR dated 13/07/2016  
**DATE OF RECEIPT** : 16/07/2016  
**DATE OF INITIATION** : 16/07/2016  
**DATE OF COMPLETION** : 20/07/2016  
**SAMPLE DESCRIPTION** : Test specimen labeled as – (samples – attached)

Sa. Nr.	Samples / material	treatment / washes	AWE-16-2288 / SK 189
9589	woven fabric, uni white	hydrophobic and antibacterial finish	dekor 30 *)
Lab Control	Control Fabric	Without antibacterial finish	

**Name of Test:**

Evaluation of Antimicrobial Activity by ISO 20743: 2011(E); Quantitative Method

**Test Conditions:**

Sterilization of Sample : autoclaving  
Neutralizer used : Buffered Saline with Triton X 100 - 0.01 %  
Contact Time : 20 hours  
Contact Temperature : 37<sup>0</sup> C  
Media and Reagent : Soyabean-casein digest agar



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### ANTIBACTERIAL ACTIVITY

#### 1. Test Bacteria: Staphylococcus aureus ATCC 6538

Quantitative Assessment ISO 20743: 2007(E) (Plate Count Method)						
Concentration of Inoculum at 0 hrs. Control Fabric (C <sub>0</sub> ) = 1.05 x 10 <sup>5</sup> CFU/ml						Log : 5.02
Concentration of Bacteria on Control Fabric after 20 hours (C <sub>t</sub> ) = 3.90 x 10 <sup>6</sup> CFU/ml						Log : 6.59
Growth Value of F (F = Log C <sub>t</sub> - Log C <sub>0</sub> ) = 1.57						
Sample Description	Concentration of Inoculum at 0 hrs. Test Fabric (T <sub>0</sub> )		Concentration of Bacteria at 20 hrs. Test Fabric (T <sub>t</sub> )		Growth Value G = Log T <sub>t</sub> - T <sub>0</sub>	Antimicrobial Value A = F - G
	cfu/ ml	Log	cfu/ ml	Log		
9589	103000	5.01	20	1.30	-3.71	5.28

#### 2. Test Bacteria: Escherichia coli ATCC 25922

Quantitative Assessment ISO 20743: 2007(E) (Plate Count Method)						
Concentration of Inoculum at 0 hrs. Control Fabric (C <sub>0</sub> ) = 1.07 x 10 <sup>5</sup> CFU/ml						Log : 5.02
Concentration of Bacteria on Control Fabric after 20 hours (C <sub>t</sub> ) = 4.30 x 10 <sup>6</sup> CFU/ml						Log : 6.63
Growth Value of F (F = Log C <sub>t</sub> - Log C <sub>0</sub> ) = 1.61						
Sample Description	Concentration of Inoculum at 0 hrs. Test Fabric (T <sub>0</sub> )		Concentration of Bacteria at 20 hrs. Test Fabric (T <sub>t</sub> )		Growth Value G = Log T <sub>t</sub> - T <sub>0</sub>	Antimicrobial Value A = F - G
	cfu/ ml	Log	cfu/ ml	Log		
9589	107000	5.02	90	1.95	-3.07	4.68

The Standard Antimicrobial Value A ≥ 2

#### COMMENT:

When tested as specified, Fabric Sample labeled as 9589; **PASSES** the Quantitative Assessment of activity by ISO 20743: 2013(E) Test Method.



For BIOTECH TESTING SERVICES

Dr Shilpa U. Nair  
Quality Manager  
(Authorized Signatory)