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No. : HC22020167

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**Applicant(Code:01325900) :** Savewo Limited  
1/F  
266-270 Texaco Road  
Tsuen Wan NT HK

**Description of Sample(s) :** One submitted sample said to be SAVEWO TypeCool+EX MBPP SJC30.  
Country of Origin : Hong Kong

Sample(s) Received Condition(s): In plastic bag under ambient temperature

**Date Sample(s) Received :** 2022-02-09

**Date Tested :** 2022-02-11 to 2022-03-02

**Investigation Requested :** 1. Bacterial Filtration Efficiency (BFE) %  
– *Staphylococcus aureus* (ATCC 6538)  
2. Particulate Filtration Efficiency (PFE) %

**Remark(s) :** As per client's instruction, the submitted sample was treated by soaking in distilled water under ambient temperature for 24 hours. Thereafter, the treated sample was hung to dry under ambient condition for 1 hour before taken to test.



LAU Yuk Kuen, Joey  
Authorized Signatory



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**Test Result(s):**

**1. Bacterial Filtration Efficiency (BFE) %**

**Test method:** ASTM F2100-19 9.1 & ASTM F2101-19

**Summary:** The BFE test is performed to determine the filtration efficiency of test articles by comparing the bacterial control counts upstream of the test article to the bacterial counts downstream. A suspension of *Staphylococcus aureus* was aerosolized using a nebulizer and delivered to the test article at a constant flow rate and fixed air pressure. The challenge delivery was maintained at  $1.7 - 3.0 \times 10^3$  colony forming units (CFU) with a mean particle size (MPS) of  $3.0 \pm 0.3 \mu\text{m}$ . The aerosols were drawn through a six-stage, viable particle, Andersen sampler for collection. This test method complies with ASTM F2101-19.

All test method acceptance criteria were met.

Specimen(s)	SAVEWO TypeCool+EX MBPP SJC30
1	>99.9%
2	>99.9%
3	>99.9%
4	>99.9%
5	>99.9%
6	>99.9%

- Notes :
- Challenge bacteria : *Staphylococcus aureus* (ATCC 6538)
  - Positive control average for specimen 1-3: 1875 CFU
  - Positive control average for specimen 4-6: 2234 CFU
  - Negative control average : <1 CFU
  - Mean particle size :  $3.0 \mu\text{m}$
  - Testing side : inside of specimen
  - Testing area :  $46.5 \text{ cm}^2$
  - Precondition : Minimum of 4 hours at  $(21 \pm 5) ^\circ\text{C}$  and  $(85 \pm 5) \%$  relative humidity (RH)

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## 2. Particulate Filtration Efficiency (PFE) %

**Test method:** ASTM F2100-19 9.3 & ASTM F2299-17

**Summary:** This procedure was performed to evaluate the non-viable particle filtration efficiency (PFE) of the test article. Monodispersed polystyrene latex spheres (PSL) were nebulized (atomized), dried, and passed through the test article. The particles that passed through the test article were enumerated using a laser particle counter.

The upstream and downstream particle counts at each position were sampled and recorded. The filtration efficiency was calculated using the average number of particles penetrating the test article (downstream particle count) compared to the average of the upstream particle count.

The procedure employed the basic particle filtration method described in ASTM F2299-17. All test method acceptance criteria were met.

Specimen(s)	SAVEWO TypeCool+EX MBPP SJC30			
	Upstream particle count	Downstream particle count	Resistances to Ventilation (Pa)	PFE
1	76520	0	36	>99.9%
2	76500	0	37	>99.9%
3	76580	10	35	>99.9%
4	73600	0	37	>99.9%
5	69400	0	34	>99.9%

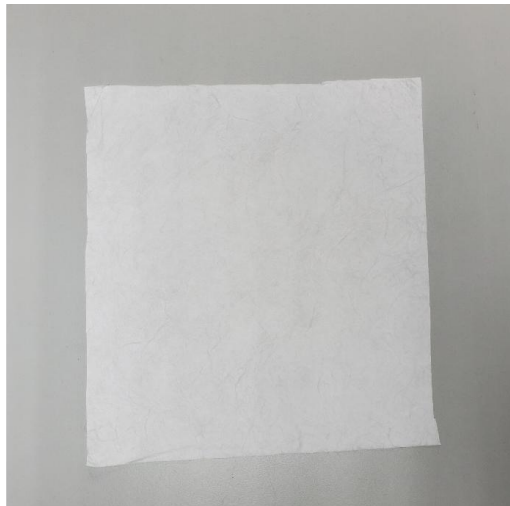
Notes : - Flow rate : 28.3 Litre/min  
 - Challenge particles : 0.1 µm PSL  
 - Testing area : 100 cm<sup>2</sup>  
 - Testing side : Outside of specimen  
 - Testing condition : 18 - 24 °C, 25 -55 % Relative humidity

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**Photo(s):**



**\*\*\*\*\* End of Test Report \*\*\*\*\***

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