

TEST REPORT

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Business Reg. No. 196900269D

Date: 23 October 2019

Your Ref.: -

Our Ref.: MM-8500081289/OWD

Page 1 of 4

Subject : Batch testing of Industrial Safety Helmet submitted by QSS Safety Products (S) Pte Ltd on 15 October 2019.

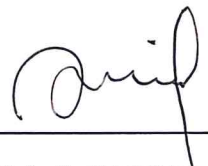
Tested for : **QSS SAFETY PRODUCTS (S) PTE LTD**
239 Ubi Avenue 4
Interpid Warehouse Complex
Singapore 408821

Date of Test : 18 October 2019 to 23 October 2019

Method of Test : SS 98 : 2013
1. Physical Requirements
2. Force Transmission (Hot & Wet condition)
3. Penetration Resistance (Hot & Wet condition)
4. Flame Resistance
5. Chinstrap Anchorage
6. Electrical Properties (Optional)
7. Marking

Description of Sample : 71 pieces of Industrial Safety Helmets with chin strap were randomly sampled at the premises of QSS Safety Products (S) Pte Ltd from the following batch;

Batch Size	:	7100 pieces
Brand / Model	:	Quebee / QB-HM-AQM-2, QB-HM-AQM-3 & QB-HM-AQM-8 (Vented)
Colour	:	White, Yellow, Green & Blue
Country of Origin	:	China
Chin Strap	:	Black, red & white stripe elastic strap
Manufacture Date of Shell	:	September 2019
Cargo Clearance Permit No.	:	IG9J841484I

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Results:

1. Physical Requirement
The tested sample complied with the requirements of SS 98 : 2013 specification.
Refer to Table 1.
2. Force Transmission
The tested sample complied with the requirements of SS 98 : 2013 specification.
Refer to Table 2.
3. Penetration Resistance
The tested sample complied with the requirements of SS 98 : 2013 specification.
Refer to Table 3.
4. Flame Resistance
The tested sample complied with the requirements of SS 98 : 2013 specification.
Refer to Table 4.
5. Chinstrap Anchorage
The tested sample complied with the requirements of SS 98 : 2013 specification.
Refer to Table 5.
6. Electrical Properties
The tested sample complied with the requirements of SS 98 : 2013 specification.
Refer to Table 6.
7. Marking
The tested sample complied with the requirements of SS 98 : 2013 specification.
Refer to Table 7.

CONCLUSION

1. Based on the results, the samples taken from the consignment of industrial safety helmets complied with the batch testing scheme in accordance with SS 98 : 2013.
2. The remaining of the untested industrial safety helmets in the consignment (i.e. 7029 pieces), were each labeled with a SETSCO SERVICES BATCH INSPECTED labels from B776062 to B783090.


OW WEI DE
Testing Officer
SAM AU
Engineer (Mechanical Testing)
Mechanical Technology Division

Results:**Physical Requirement****Table 1: Construction**

Observation	Result	SS 98 : 2013 Requirement
Construction	Complied	Clause 4.1
Material	Complied	Clause 4.2

Performance**Table 2: Force Transmission Test**

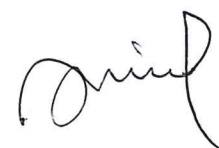
Conditioning method	Result	SS 98 : 2013 Requirement (Clause 5.1.1)
Hot	Complied	<ul style="list-style-type: none"> • Force \leq 5 kN • Crack \leq 50 mm
Wet	Complied	

Table 3: Penetration Resistance Test

Conditioning method	Result	SS 98 : 2013 Requirement (Clause 5.1.2)
Hot	Complied	Striker shall not contact headform surface.
Wet	Complied	

Table 4: Flame Resistance Test

Test	Result	SS 98 : 2013 Requirement (Clause 5.1.3)
Flame Resistance Test	Complied	The material of the shell shall not burn with the emission of flame after a period of 5 secs has elapsed after removal of the flame.

Results:**Table 5: Chinstrap Anchorage Test**

Test	Result	SS 98 : 2013 Requirement (Clause 5.1.4)
Chinstrap Anchorage Test	Complied	Artificial jaw shall be released at a force: $150\text{ N} \leq \text{Force} \leq 250\text{ N}$ due to failure of the anchorage(s) or breakage of chinstrap

Table 6: Electrical Properties

Test	Result			SS 98 : 2013 Requirement (Clause 5.2.1)
	Test 1	Test 2	Test 3	
Electrical Properties Test	Complied			Leakage current $\leq 1.2\text{ mA}$

Table 7: Marking

Test	Result	SS 98 : 2013 Requirement
Marking	Complied	Clause 7.1 & Clause 7.2