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TECHNICAL REPORT

SATRA TECHNOLOGY SERVICES (DONGGUAN) LTD UNIT 110, XINZHONGYIN GARDEN XIPING, NANCHENG DISTRICT DONGGUAN CITY Guangdong Province China	SATRA reference:	CHM8773B3V8	
		2350	1
	Report ID/Issue number:	35718/1	
	Your reference:	CHT8137Y1G9	
	Date samples received:	08/12/2023	
	Date(s) work carried out:	18/12/2023 to 21/12/2023	
	Date of report:	08/01/2024	

Testing Requirements

EN 13832-1:2018 Clause 4.2 - Splashing testing on footwear described as Safety footwear, referenced as TOTECTORS WILLIAMS AT WP in accordance with the requirements for performance Type U.

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Report Signed by:

Amanda Fernando


Report Signatory



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WORK REQUESTED:

The footwear described as Safety footwear, referenced as TOTECTORS WILLIAMS AT WP was received on 8th December 2023 for testing to EN 13832-1:2018 Clause 4.2 - Splashing test, in accordance with footwear performance Type U specified in EN 13832-2:2018 - Footwear protecting against chemicals - Requirements for limited contact with chemicals.

SAMPLE SUBMITTED:



Footwear described as TOTECTORS WILLIAMS AT WP

CONCLUSION:

The footwear described as TOTECTORS WILLIAMS AT WP achieved the following results when assessed for defects as defined by Annex B of EN 13832-1:2018 and therefore, met the requirement for splashing resistance in EN 13832-2:2018 Clause 6.2 for performance Type U.

Chemical	Result
40% Sodium hydroxide (CAS: 1310-73-2)	No major defects
96% Sulphuric acid (CAS: 7664-93-9)	No major defects
25% Ammonium hydroxide (CAS: 1336-21-6)	No major defects
30% Hydrogen peroxide (CAS: 7722-84-1)	No major defects

Full results are reported in the following tables.

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TESTING REQUIRED:

- EN 13832-1:2018 - Footwear protecting against chemicals. Terminology and test methods. Splashing resistance test in accordance with Clause 4.2, to the requirements of EN 13832-2:2018, Clause 6.2 in accordance with SATRA SOP CAT-055.

RESULTS:

Samples were stored at 23 (± 2) °C and 50 (± 5) % relative humidity for at least 24 hours prior to testing.

Sample	Code Letter ¹ and Chemical	Liquid penetration	Observations		
			10 minutes	60 Minutes	24 Hours
TOTECTORS WILLIAMS AT WP	K-40% Sodium hydroxide	None detected	No ingress	No Ingress, No Damage	No Ingress, No Damage
	L-96% Sulphuric acid	None detected	No ingress	No Ingress, No Damage	No Ingress, No Damage
	O-25% Ammonium hydroxide	None detected	No ingress	No Ingress, No Damage	No Ingress, No Damage
	P-30% Hydrogen peroxide	None detected	No ingress	No Ingress, No Damage	No Ingress, No Damage
Requirements:		No major defects (see appendices), no liquid penetration and no spilt liquid trapped when at least 2 chemicals from EN 13832-2:2018 table 4 are assessed.			

¹As defined in Table 4 of EN 13832-2:2018 Clause 6.2.

*See images in appendices



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APPENDICES:

EN 13832-1:2018 - Annex B - Assessment of damage by the laboratory during testing of splashing

When tested in accordance with Clause 4.2, footwear shall be failed if any of the following signs of damage are observed:

- i) Beginning of a pronounced and deep cracking affecting half of the upper material thickness
- ii) The upper shows areas with deformations, chemical burns, fusion or bubbles, or split seams
- iii) Upper/ outsole separation of more than 10 mm long and 5 mm wide and/ or deep
The outsole shows cracks more than 10 mm long and 3 mm wide and/ or deep

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When reporting results against a conformance statement (Pass/Fail or the allocation of a class or level) then uncertainty of measurement is taken into account based on a non-binary acceptance which itself is based on the guard band being equal to the expanded uncertainty.

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