

TECHNICAL DATA SHEET
MAGMA-SHIELD

Updating of Document: 20th Aug 2023
Document ISO Reference: ISO_SFX 06.120.a



SPECIFICATIONS	
PART NO	MA00QR7W
DESCRIPTION	MAGMA-SHIELD Safety Helmet
CERTIFICATIONS	EN397-2012:2012 + A1:2012 Molten Material Splash Resistant
COUNTRY OF ORIGIN	UAE
SHELL	Shell Made of Super Tuff High Heat PA, Ergonomic & Innovative design.
	Excellent Properties retention at Radian Heat of 220deg C
	Molten Material Splash Resistant tested at 1400Deg C from Height of 225mm
	Excellent Shock Absorption, Light Weight & Strong
	Universal Slots on both sides for mounting accessories.
	Y-Chin Strap mounting options
	UV Stability tested up to 400 hours
COLOUR OPTIONS	White/Yellow/Green/Blue
HARNESS	25mm Extra wide, High Tensile Strength Terylene
	8-point mounting, extra safety & max Shock absorption, 3D Adjustments
	3-Layers, HQ Sweat Band, with stain resistant and sweat absorbing features
Orbit-RU HP Susp Sys	Unique (Patent pending) 3D adjustment system Rotary Ratchet
Orbit-XP HP Susp Sys	Optional Push Button Ratchet adjustment system
Orbit-DS HP Susp Sys	Optional Manual ratchet adjustment system
	Wide range adjustment size 52-64cm
	Self lubricating ratchet gears, high impact ABS body.
	Swing options on head band terminals for extra comfort and fitment
Additional info	Withstand sub zero temp to -20deg C
	Artificial ageing durability up to 5 years

FACTORY:

Safetix Mid East FZE

G1-007, PO Box 8898, SAIF ZONE Sharjah – UAE
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Email: info@safetix-securite.com



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TECHNICAL DATA SHEET
OPLITE-SHIELD CLASS-E

Updating of Document: 20th JAN 2024
Document ISO Reference: ISO_SFX 06.02.a



SPECIFICATIONS	
PART NO	OS11QR7W
DESCRIPTION	OPLITE-SHIELD Safety Helmet
CERTIFICATIONS	ANSI Z89.1-2014 Type I Class-E/ EN397-2012
COUNTRY OF ORIGIN	UAE
PRODUCT FEATURES	
SHELL	Shell Made of High Impact ABS/HDPE, Ergonomic & Innovative design. 2-side Venting
	Non-Vented Electrical Insulated to meet Class-E Standard up to 30kV
	Excellent Shock Absorption
	Light Weight & Strong
	Universal Slots on both sides for mounting accessories.
	Y-Chin Strap mounting options
HARNESS	25mm Extra wide, High Tensile Strength Terylene
	8-point mounting, extra safety & max Shock absorption
	3-Layers, HQ Sweat Band, with stain resistant and sweat absorbing features
	Orbit-RU HP Susp Sys Unique (Patent pending) 3D adjustment system Rotary Ratchet
	Orbit-XP HP Susp Sys Optional Push Button Ratchet adjustment system
	Orbit-DS HP Susp Sys Optional Manual ratchet adjustment system
Additional info	Wide range adjustment size 52-64cm
	Self lubricating ratchet gears, high impact ABS body.
	Swing options on head band terminals for extra comfort and fitment
	Withstand sub zero temp to -20deg C
Artificial ageing durability up to 5 years	

FACTORY:

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Test Report # T18506-02-2 Issue 1
ANSI/ISEA Z89.1 - 2014 (R2019)
Safetix Mid East FZE
PERF Oplite-Shield – Industrial Safety Helmet
09 February 2024



Approved by:

A handwritten signature in black ink, reading "Sarah Henderson".

Sarah Henderson
Head Protection, Hand Protection &
Athletic Equipment - Laboratory Manager

Prepared by:

A handwritten signature in black ink, reading "Shelley Brady".

Shelley Brady
Head Protection & Athletic Equipment -
Laboratory Administrator

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Phone: 330.220.0515 Fax: 330.220.0516

Issued to: Safetix Mid East FZE
G1-004, Saif Zone
Sharjah
UAE

Date: 09 February 2024
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Objective:

Contract testing to ANSI/ISEA Z89.1-2014 (R2019) “American National Standard for Industrial Head Protection”.
-Type I, Class E, G & C

Sample(s):

PERF Oplite-Shield (OS00QR7W) - Industrial Safety Helmet

Description	Qty	Date Code	Material	Date Received	Sample ID
White Shell (Front Brim Cap) w/ Ratchet Suspension (6-8 pt.), Non- Vented	30	1/23	ABS	24 October 2023	6A-x
	24	1/24		24 January 2024	6A-02-x

Procedures:

Testing protocols in accord with good laboratory practice were employed unless otherwise specified, for all tests.

Testing procedures as specified within Section 10 of ANSI/ISEA Z89.1-2014 (R2019) were followed.

Testing was performed at room temperature $23^{\circ}\text{C} \pm 3^{\circ}\text{C}$ ($73.4^{\circ}\text{F} \pm 5.4^{\circ}\text{F}$) per ANSI/ISEA Z89.1 – 2014 (R2019).

Material listed as shown on product or in attestation from client. The material has not been verified by the lab.

Equipment:

Cadex Twin Wire Test Platform
Environmental Conditioning Chambers
Cadex Impact Software V6.9U
Hanco Dielectric Strength Chamber

Assessment Summary:

Date Tested: 31 October 2023 & 07 February 2024 – 09 February 2024
Test Performed By: Pete Turpin – Senior Technician

Requirements	Compliant	Non-Compliant
6 Instructions and Marking	X	
7 Performance Requirements		
7.1 Requirements for Type I		
7.1.1 Flammability	X	
7.1.2 Force Transmission	X	
7.1.3 Apex Penetration	X	
7.1.4 Electrical Insulation Requirement		
7.1.4.2 Electrical Insulation Requirement - Class G	X	
7.1.4.3 Electrical Insulation Requirement - Class E	X	
7.3 Requirements for Optional Testing		
7.3.1 Reverse Wearing		
-Force Transmission		
7.3.2 High-Visibility		
7.3.3 Higher Temperature		
7.3.4 Lower Temperature		

Samples as assessed meet the requirements of ANSI/ISEA Z89.1 2014 (R2019) for Type I, Class E, G & C.

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Results:

6	Instructions and Marking	Pass	Fail
	6.1 Instructions Provided	X ¹	
	6.2 Marking:		
	a. The name or identification mark of the manufacturer	X	
	b. The date of manufacture	X	
	c. The American National Standard designation, ANSI/ISEA Z89.1-2014	X ¹	
	d. The applicable Type and Class followed by optional criteria markings (if applicable)	X	
	e. The approximate headband size range	X	
	6.3 Optional Performance:		
	 – Reverse Donning LT – Lower Temperature HV – High Visibility HT – Higher Temperature	Not Applicable	

Note: All markings under clause 6.2 shall be at least 1.5 mm (0.06 in.) in height.

¹ - Artwork provided

7.1.1 Flammability

Sample ID	Afterflame (sec)	Pass	Fail
6A-12	0	X	
Specification:	< 5		

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7.1.2 Force Transmission

Sample ID	Conditioning (°C)	Velocity (m/s)	Force (N)	Specified Value (N)	Observations	Pass	Fail
6A-02-1	49 ± 2	5.53	2232	≤ 4450	-	X	
6A-02-2		5.53	2403		-	X	
6A-02-3		5.53	2379		-	X	
6A-02-4		5.52	2359		-	X	
6A-02-5		5.49	2318		-	X	
6A-02-6		5.51	2252		-	X	
6A-02-7		5.49	2424		-	X	
6A-02-8		5.50	2551		-	X	
6A-02-9		5.50	2444		-	X	
6A-02-10		5.53	2593		-	X	
6A-02-11		5.52	2487		-	X	
6A-02-12		5.50	2338		-	X	
Average			2398	≤ 3780		X	
6A-02-13	-18 ± 2	5.52	3699	≤ 4450	-	X	
6A-02-14		5.50	3251		-	X	
6A-02-15		5.53	3551		-	X	
6A-02-16		5.52	2465		-	X	
6A-02-17		5.51	4047		-	X	
6A-02-18		5.50	3677		-	X	
6A-02-19		5.48	3655		-	X	
6A-02-20		5.49	3551		-	X	
6A-02-21		5.52	3166		-	X	
6A-02-22		5.48	3613		-	X	
6A-02-23		5.48	3039		-	X	
6A-02-24		5.48	3635		-	X	
Average			3446	≤ 3780		X	
Specification:		5.50 ± 0.05					

Observations:
(-) No observation

7.1.3 Apex Penetration

Sample ID	Conditioning (°C)	Velocity (m/s)	Electrical Contact (No / Yes)	Observations	Pass	Fail
6A-25	49 ± 2	7.1	No	-	X	
6A-26		7.0	No	-	X	
6A-27		6.9	No	-	X	
6A-28	-18 ± 2	7.0	No	-	X	
6A-29		7.0	No	-	X	
6A-30		7.0	No	-	X	
Specification:		7.0 ± 0.1	No Electrical Contact Allowed			

Observations:
(-) No observation

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7.1.4.2 Electrical Insulation Requirements (Class G)

Sample ID	Leakage (mA)	Burn Through (No / Yes)	Observations	Pass	Fail
6A-1	0.5	No	-	X	
6A-13	0.5	No	-	X	
Specification:	Class G: ≤ 3 mA	No Burn Through Allowed			

Class G - 2200 volts, 60 Hz, 1 minute

Observations:
(-) No observation

7.1.4.3 Electrical Insulation Requirements (Class E)

Sample ID	Leakage (mA)	Burn Through (No / Yes)	Observations	Pass	Fail
6A-02-1	4.9	No	-	X	
6A-02-13	4.9	No	-	X	
Specification:	Class E: ≤ 9 mA	No Burn Through Allowed			

Class E - 20,000 volts, 60 Hz, 3 minutes, 30,000 volts no burn through.

Note: Test line lowered to prevent plashover

Observations:
(-) No observation

Sample Photographs:



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Sample Photographs (continued):



6A-02



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13. Certain work may be subcontracted to ICS-approved laboratories as required or applicable. Client will be notified of this in advance.
14. Client agrees to pay any and all additional costs associated with unexpected or above-standard communications and/or consultations with Client or third parties as designated by Client.
15. Client agrees to pay any and all additional costs for work additional to the original scope of work as agreed to by Client.
16. Client understands and agrees that ICS, in entering into this Contract and by performing services hereunder, does not assume, abridge, abrogate or undertake to discharge any duty or responsibility of Client to any other party or parties. No one other than Client shall have any right to rely on any Report or other representation or conduct of ICS and ICS disclaims any obligations of any nature whatsoever with respect to such third parties.
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18. Client agrees, in consideration of ICS undertaking to perform the test(s) hereunder, to protect, defend and indemnify ICS from any and all claims, damages, expenses either direct or consequential for injuries to persons or property arising out of or in consequence of the performance of the testing, inspection and reporting hereunder and/or the performance of the products tested or inspected hereunder, unless caused by the negligence of ICS.
19. It is agreed that if ICS should be found liable for any losses or damages attributable to the services hereunder in any respect, its liability shall not exceed the amount of the fee paid by Client for services rendered and Client's sole remedy at law or in equity shall be the right to recover that sum.
20. Quotations are valid for 30 days from date of issue. Standard Terms: 30% Laboratory/Testing fees invoiced and payable upon acceptance of quotation. 15 days net. Any change to these terms requires written approval by the President, Executive Vice President or Accounting Manager. ICS retains the right to require prepayment in full at any time. Cancelled jobs will be invoiced for work performed and/or set-up costs incurred. All jobs will be assessed a \$25 sample disposition fee. Shipping costs over \$25 incurred by ICS for sample returns will be invoiced at cost +10%.
21. ICS hereby objects to any conflicting terms contained in any order, acceptance or other subsequent correspondence submitted by Client.
22. In the event that payment is not received within 15 days of invoice date, Client agrees to pay a late payment charge on the unpaid balance equal to 1-1/2% per month or the maximum charge allowed by law, whichever is less, and all costs and expenses, including attorney's fees where recovery of the same is not prohibited by law, incurred by ICS in collecting such invoices.
23. All costs associated with compliance with any subpoena (s) for documents, testimony in a court of law, or for any other purpose relating to work performed by ICS in connection with work performed for that Client, shall be paid by Client. Client shall also pay costs related to deposition and trial testimony.
24. Cancelled/discontinued orders: Client responsible for all administrative and testing charges up to point of cancellation.



Confidential Report

Our Ref: E-035714





Unit 6, Wheel Forge Way, Trafford Park,
Manchester, M17 1EH, UK.
Telephone: +44 (0) 161 876 4211
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Website: www.bttg.co.uk

Date: 17 June 2024

Our Ref: E-035714
Your Ref: -

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Client: BSI Product Services
Kitemark House
Maylands Avenue
Hemel Hempstead
Herts
HP2 4SQ

Job Title: Molten metal splash testing of one industrial safety helmet

Client's Order No: -

Date of Receipt: 6th June 2024
Date of Test Start: 14th June 2024

Description of Sample(s): One safety helmet, identified as follows, was received for testing:

Magma Shield Sub Helmet

Work Requested: We were asked to make the following test:

EN 397: 2012 Clause 5.2.5 Molten metal splash



1066

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Date: 14 June 2024

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BSI Product Services

Sample: Magma Shield Sub Helmet

Performance Standard: EN 397: 2012 Clause 5.2.5 Molten metal splash

Test Method: EN ISO 9185: 2007
(Modified as per EN 397: 2012 Clause 6.12 i.e. using a headform (in place of the inclined specimen holder) and substituting the helmet under test for the PVC skin simulant).
Metal: Iron (>97% Purity)
Mass of metal: 150g $\pm$ 10g
Pouring temperature: 1400 $\pm$ 20°C
Pouring height (pouring axis to top of helmet): 225 $\pm$ 5mm

Summary of Results:

Test No.	Mass of metal, g	Residue g	Metal poured, g	Penetration Yes/No	Deformation Yes/No	Afterflame time, s
1	158	7	151	No	No	0s

Assessment:

Property	EN 397 Requirements	Result Obtained	Pass/Fail
5.2.5 Molten metal splash	No penetration Deformation $\leq$ 10mm Afterflame time $\leq$ 5s	No penetration No deformation No afterflame	PASS

Where required to make a judgement to any pass/fail criteria an estimation of uncertainty of measurement has been taken into account. Under our policy we have used a non-binary decision rule. See our decision rules policy (<http://www.bttg.co.uk/decision-rules-policy>) for further information.

Reported by:  P M Collinson, Section Leader PPE Laboratory

Countersigned by:  M T Healey, Principal Technician

Enquiries concerning this report should be addressed to Customer Services.

Date: 14 June 2024

Our Ref: E-035714
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BSI Product Services

Appendix A

EN 397: 2012 Clause 5.2.5 Molten Metal splash

EN 397 Clause	Test Method	95% Confidence limit	
5.2.5 Molten Metal splash	EN 397 clause 6.1.2	Penetration	± 0%
		Deformation	± 1mm
		Afterflame time	± 1 second

