



HARDCAP AEROLITE[®]

UNCOMPROMISING PERFORMANCE



HardCap
aerolite[®]



HARDCAP AEROLITE®

JSP® Hardcap Aerolite® is ultra-lightweight at 135g and yet exceeds the EN 812 performance requirements for Industrial Bump Caps - with an impact force transmission < 3x the required maximum, even when tested at -40°C.





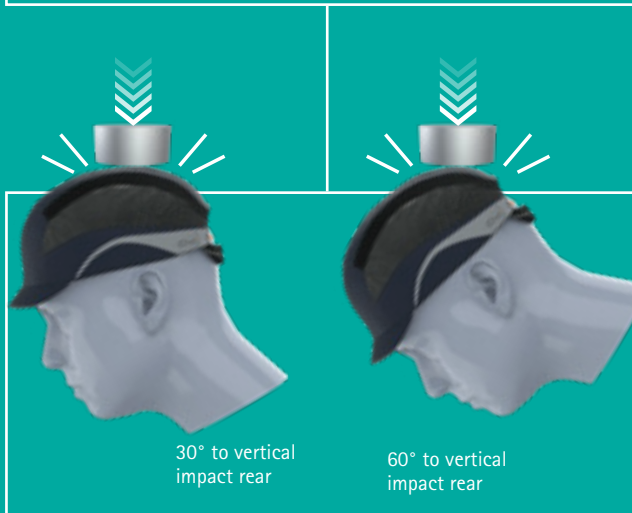
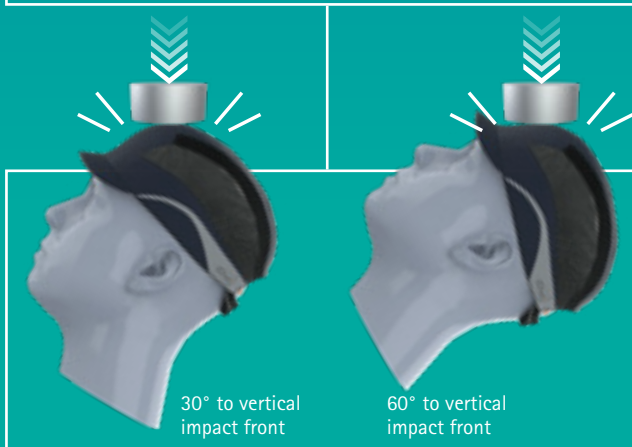
BUMP CAP TESTING EXPLAINED

EN 812 is the European standard for Industrial Bump Caps. Unlike Industrial Safety Helmets, bump caps are intended only to protect the wearer from static objects (e.g. walking into low ceilings or hanging obstructions). EN 812 specifies the requirements for design, minimum performance, and testing of Industrial Bump Caps.

IMPACT TESTING

Bump caps are impact tested in four locations. Samples are fitted to a test headform tilted 30° and 60° to vertical, then impacted on the front and rear areas of the crown.

A 5kg flat steel striker is dropped from a height of 0.25m to create an impact energy of 12.5 J. In each test, the force transmitted to the headform must be below 15 kN.



PENETRATION TESTING

Penetration resistance testing is carried out with a 0.5kg conical striker dropped from a height of 0.5m. To pass the striker must not contact the headform.



CONDITIONING

Prior to impact and penetration testing, bump caps are pre-conditioned:

- Low temperature -10°C
- High temperature +50°C
- Water immersion
- Artificial (UV) aging

For optional 'very low temperature' testing, samples are pre-conditioned at -20°C or -30°C. Other optional tests include resistance to flame and electrical properties.

PERFORMING BEYOND THE STANDARD

The JSP® Hardcap Aerolite® goes beyond EN 812 minimum requirements, absorbing impact so efficiently it transmits less than a third of the maximum force allowed by the standard. In place of the EN 812 'very low temperature' option, the Hardcap Aerolite® is tested to a custom specification, pushing performance to the extreme at -40°C.

IMPACT PROTECTION

Impact location	Conditioning	Transmitted force (Max. 15 kN)
30° to vertical – front	Very low temp. -40°C	<5 kN
	Low temp. -10°C	<5 kN
	High temp. +50°C	<5 kN
	Water immersion	<5 kN
	Artificial aging	<5 kN
30° to vertical – rear	Very low temp. -40°C	<5 kN
	Low temp. -10°C	<5 kN
	High temp. +50°C	<5 kN
	Water immersion	<5 kN
	Artificial aging	<5 kN
60° to vertical – front	Very low temp. -40°C	<5 kN
	Low temp. -10°C	<5 kN
	High temp. +50°C	<5 kN
	Water immersion	<5 kN
	Artificial aging	<5 kN
60° to vertical – rear	Very low temp. -40°C	<5 kN
	Low temp. -10°C	<5 kN
	High temp. +50°C	<5 kN
	Water immersion	<5 kN
	Artificial aging	<5 kN



RESISTANCE TO PENETRATION

Conditioning	Result
Very low temp. -40°C	PASS
Low temp. -10°C	PASS
High temp. +50°C	PASS
Water immersion	PASS
Artificial aging	PASS

COMPLIANCE & REASSURANCE

Industrial Bump caps are considered Category II products under PPE Regulation 2016/425, requiring a Type Examination (CE/UKCA) certificate and internal production control to maintain compliance. Unlike Category III PPE, such as respirators or ear defenders, ongoing third party monitoring is not mandatory.

JSP® Hardcap Aerolite® is covered by the BSI Kitemark™ scheme. Voluntary Kitemark™ certification applies the rigorous independent verification processes required for Category III PPE. BSI monitor JSP's production, quality and testing procedures, and test our products regularly – providing reassurance that the JSP® Hardcap Aerolite® is subject to stringent controls.



KM 579403
BS EN 812



FEATURES & BENEFITS

ULTRA-LIGHTWEIGHT

Weighing less than 135g, the JSP® Hardcap Aerolite® is made with high-performance lightweight materials for extreme comfort without compromising on protection.

DUAL-LAYER IMPACT PROTECTION

Underneath the sleek textile cover is a tough HDPE shell and EPP liner, carefully designed to offer maximum impact resistance while remaining light and flexible.

AIRFLOW TECHNOLOGY

Large open weave panels in the cover enable maximum airflow, reducing heat build-up to keep the wearer cool.

FITTING

Adjusts easily for a secure, comfortable fit that keeps the cap in place during movement.

COMFORT

Foam padding inside the cap offers a comfortable fit. The comfort pad and sweatband are made with moisture-wicking material to draw sweat away from the skin.

REFLECTIVE

Reflective details on the sides and reflective piping around the peak increase visibility and improve safety in low-light conditions.

MACHINE WASHABLE

The textile cover is easy to remove for machine washing. Hardcap Aerolite® 60° is suitable for industrial or domestic washing. See table on page 9 for details.

CUSTOM BRANDING

Hardcap Aerolite® can be customised with company branding. Apply embroidery or heat transfer logos using the JSP Logo Express® Service. MOQs apply.





Textile cover

HDPE shell

EPP liner

Foam comfort pad

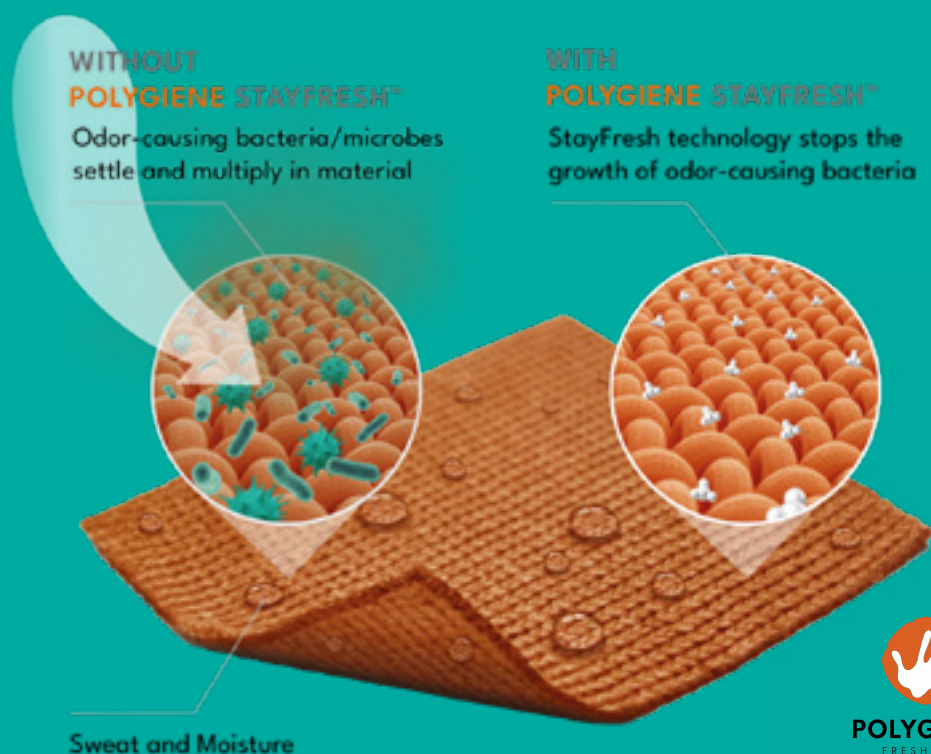
SUSTAINABLE PPE SOLUTION

The JSP® Hardcap Aerolite® has been developed to minimise environmental impact. With Polygiene® StayFresh™ technology, the bump cap extends product life, reduces waste, and allows less frequent washing at a lower temperature, saving energy and water.

POLYGIENE® STAYFRESH™ TECHNOLOGY

Polygiene® StayFresh™ inhibits the growth of odour-causing bacteria. Embedded in the JSP® Hardcap Aerolite® comfort pad and sweatband, the advanced material technology keeps the cap fresh – this allows less frequent machine washing, reducing energy and water usage, while extending the life of the fabric.

- Anti-bacterial
- Reduced energy and water usage
- Extended product life



POLYGIENE
FRESHNESS



MAINTAINABLE

Get the most out of your bump cap.















The JSP® Hardcap Aerolite® is built for easy maintenance. Both the cover and comfort pad are removable for cleaning. A full range of spares is available to replace individual components as required, further extending lifespan and reducing waste.

HARDCAP AEROLITE® SPARES

AAU100-000-000	Comfort pads with spare hook & loop coins for Hardcap Aerolite® - pack of 10
AAU200-000-000	Inner HDPE shell for Hardcap Aerolite® with comfort pads - pack of 10
AAF050-001-100	Replacement cover - 5cm short peak Hardcap Aerolite® - black
AAF050-002-100	Replacement cover - 5cm short peak Hardcap Aerolite® - navy
AAG050-001-500	Replacement cover - 2.5cm micro peak Hardcap Aerolite® - hi vis yellow
AAG050-001-600	Replacement cover - 2.5cm micro peak Hardcap Aerolite® - hi vis orange
AAG050-000-100	Replacement cover - 2.5cm micro peak Hardcap Aerolite® - white
AAG050-001-100	Replacement cover - 2.5cm micro peak Hardcap Aerolite® - black
AAG050-002-100	Replacement cover - 2.5cm micro peak Hardcap Aerolite® - navy
AAG052-101-500	Replacement cover - 2.5cm micro peak Hardcap Aerolite® 60° - hi vis yellow
AAG052-100-600	Replacement cover - 2.5cm micro peak Hardcap Aerolite® 60° - red
AAG052-100-100	Replacement cover - 2.5cm micro Peak Hardcap Aerolite® 60° - White
AAG052-102-100	Replacement cover - 2.5cm micro Peak Hardcap Aerolite® 60° - Navy



QUICK REFERENCE & SELECTION GUIDE

		STANDARDS	BUMP CAP TESTING & PERFORMANCE				SHELL		
			Front /rear impact resistance	Crown penetration	Operational temperature range	Anti-bacterial Polygiene® StayFresh™ technology	EPP liner	Shell material	Recyclable
EN 812	 HARDCAP AEROLITE®	EN 812	 12.5 Joules	 2.5 Joules	 +50°C -40°C				
	 HARDCAP AEROLITE® 60°	EN 812	 12.5 Joules	 2.5 Joules	 +50°C -40°C				

HARDCAP AEROLITE® THE LIGHTEST FULL SHELL BUMP CAP



Designed by JSP's in-house R&D team, the Hardcap Aerolite® weighs less than 135g without compromising on performance. The cap cover features large open weave panels, and reflective details to increase visibility in low light conditions. The comfort pad and sweatband are made with Polygiene® StayFresh™ anti-bacterial technology for improved hygiene and extended product lifespan.



HARDCAP AEROLITE® 5cm SHORT PEAK EN 812



AAF000-002-100 Hardcap Aerolite® - short peak - navy 

AAF000-001-100 Hardcap Aerolite® - short peak - black 

HARDCAP AEROLITE® 2.5cm MICRO PEAK EN 812



AAG000-002-100 Hardcap Aerolite® - micro peak - navy 

AAG000-001-500 Hardcap Aerolite® - micro peak - hi vis yellow 

AAG000-001-100 Hardcap Aerolite® - micro peak - black 

AAG000-001-600 Hardcap Aerolite® - micro peak - hi vis orange 

AAG000-000-100 Hardcap Aerolite® - micro peak - white 

PEAK SIZE		COVER			OPTIONS & GENERAL FEATURES							
2.5cm Micro peak	5cm Short peak	Material	Adjustable elasticated strap and buckle	Reflective area	Air flow technology	ID card holder	Comfort pad	Chinstrap / harness	Embroidery Logo	Heat Transfer Logos	Machine washable temperature	Weight
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	100% woven Polyester	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Brushed Nylon	<input checked="" type="checkbox"/> 2-pt	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Max 30°C	135g
<input checked="" type="checkbox"/>		100% woven Polyester	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		Brushed Nylon	<input checked="" type="checkbox"/> 2-pt	<input checked="" type="checkbox"/>		Max 60°C	135g

HARDCAP AEROLITE® WITH ID CARD HOLDER



Hardcap Aerolite® is available with an integrated badge holder to display identification where security is required. Ideal for businesses, corporations, hospitals, prisons, conventions, trade fairs, and backstage passes used in the entertainment industry.



HARDCAP AEROLITE®
2.5cm MICRO PEAK
EN 812



AAG003-402-100 Hardcap Aerolite® - micro peak - navy

HARDCAP AEROLITE® 60° INDUSTRIAL WASH BUMP CAP



The Hardcap AeroLite® 60° weighs less than 135g and is suitable for industrial washing. The protective liner is easy to remove, allowing the outer cap and comfort pad to be machine washed at 60°C for good hygiene and extended product life.



HARDCAP AEROLITE®
2.5cm MICRO PEAK
EN 812

**WASHABLE
AT 60°C**



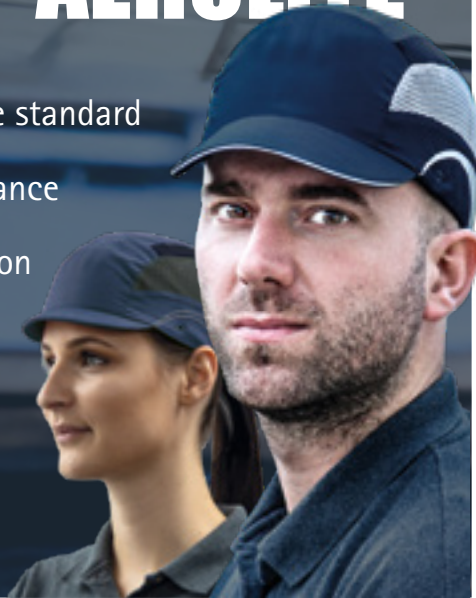
- | | | | | | |
|----------------|------------------------------------------|--|----------------|-------------------------------------------|--|
| AAG002-102-100 | Hardcap Aerolite® 60° micro peak - navy | | AAG002-100-600 | Hardcap Aerolite® 60° micro peak - red | |
| AAG002-100-100 | Hardcap Aerolite® 60° micro peak - white | | AAG002-101-500 | Hardcap Aerolite® 60° micro peak - yellow | |



HardCap
aerolite®

HARDCAP AEROLITE®

- ✓ Performing beyond the standard
- ✓ Compliance & reassurance
- ✓ Sustainable PPE solution
- ✓ Ultra-lightweight
- ✓ Full HDPE shell
- ✓ Machine washable



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