Skin Shield SPF 30



With increasing awareness about the harmful effects of UV radiation, ensuring effective daily protection against the sun's rays is crucial. As the body's largest organ, the skin holds a fundamental role in supporting the body's regulatory mechanisms. The daily application of sunscreen is one of the simplest yet most effective methods to preserve the appearance and health of your skin and enable it to continue fulfilling these protective and regulatory functions effectively. Skincare meets SPF with Emma Lewisham's Skin Shield SPF 30. This innovative formulation pairs broad spectrum UVA/UVB protection with protection against a wide spectrum of daily skin stressors that can trigger detrimental impact on the skin, while simultaneously improving the skins health and condition.

Formulation Design & Delivery

Physiology Synchrony Unlock Method™

This formulation has been engineered in line with the Emma Lewisham P/S Unlock Method™ of product design. This method is anchored on the skin's physiology, piecing together novel combinations of up to 25 scientifically researched ingredients to work in symphony and trigger a coordinated response from the skin. This synchronous activity is designed to deliver formulations that both enhance the skin's condition and amplify its response to achieve leading results.

Why did we develop this product?

It is now commonly recognised that UV exposure can accelerate the formation of wrinkles and pigmentation¹. As a result, more people are including sunscreen as a crucial part of their daily skincare routine, not just reserving it for vacations and warm weather. Furthermore, the skin is faced with daily aggressors outside of UV that can amplify changes to the skin's appearance. Recognising this wider spectrum of challenges, Emma Lewisham set out to develop a sunscreen that protects not only against the sun but offers multi-protective benefits that target a wider spectrum of daily skin stressors.

Our Skin Shield SPF 30 formulation was developed with a unique set of goals, driven by our desire to create a sunscreen that goes beyond conventional products. We set out to innovate a blend of sun care and skin care, creating a powerful product that not only protects against UV rays but improves the condition of the skin, while also feeling luxurious. We aimed to shift the perception of sunscreen from a begrudging task to an embraced step in one's daily skincare routine. We understood that for

many, the application of sunscreen was often associated with a sense of reluctance, due to the sometimes heavy and greasy textures that traditional sunscreens can leave on the skin. To address this, we merged efficacy and luxury, believing that every interaction with the skin offers an opportunity to improve it. Our multidimensional approach not only provides validated SPF 30 protection but contributes to long-term skin health. In targeting skin health, our product shields against UV rays, daytime aggressors, and provides protection for the skin's collagen inventory as a result of UV-induced degradation.

Formulation blueprint

When it comes to our skin, daytime aggressors refer to environmental factors that can have a negative impact on the skin when exposed during the day. These aggressors include UV radiation, pollution particles, and oxidative stress inducers. As the skin is the body's primary defence against external stimuli, it is continuously exposed to these aggressors, leading to progressive changes over time. One of the damaging aggressors is ultraviolet radiation. With regards to the skin, this is categorised into UVA and UVB rays – UVA rays can penetrate deeper into the skin and are most associated with premature ageing, while UVB rays primarily affect the outer layers and are most associated with sunburn and skin cancer2. Mineral sunscreen utilises physical filters that are naturally occurring minerals. Physical filters work by forming a protective barrier on the skin's surface. When exposed to sunlight, some physical filters have an ability to effectively scatter and reflect both UVA and UVB rays, preventing them from penetrating into the skin3.

How this product provides protection against UV and UV induced deterioration

The Emma Lewisham Skin Shield works as an immediate defence against the elements. Regular application of SPF is a robust tool for preventing premature aging linked to sun-induced damage - including fine lines, wrinkles, and dark spots. Zinc oxide, a key component of our skin defence strategy, plays a critical role due to its capability to reflect both UVA and UVB rays. Functioning as a mineral-based physical filter, Zinc Oxide forms a physical barrier on the skin's surface, effectively reducing the penetration of the sun's harmful UV rays. Skin Shield provides SPF 30 protection that is validated by independent testing on every batch we produce. As part of the formulating process, our priority was to find a reliable SPF testing facility to ensure all Emma Lewisham Skin Shield products have a consistent achievement of SPF 30, meeting AS/NZS and international standards.

While a 100% natural SPF is an ongoing development project, as we are emphatic about achieving superior efficacy with 100% natural products, our current Skin Shield formulation is 98% natural, incorporating a small amount of an innovative, high-performing synthetic UV filter, tris-biphenyl triazine. During our extensive independent testing of both our Skin Shield SPF 30 as well as many other natural reference formulations, we identified the substantial difficulties of achieving a reliable, true SPF 30 through purely natural means. While we continue to develop and independently test 100% natural SPF 30 formulations alongside industry leading scientists, our product integrity is rooted in ensuring this formulation is delivering true SPF 30 protection in accordance with the most stringent testing available, so until we crack this code, Skin

Shield's mineral based protection is supported by 2% of this innovative chemical filter.

Our SPF protection is complimented with Inula Helenium Extract to reduce damage caused by environmental aggressors such as pollution, alongside Pink Algae that shields the skin's collagen from UV-induced deterioration. Pink Algae does this by reducing the presence of Advanced Glycation Products (AGEs). The formation of AGEs can be accelerated by environmental stressors, such as UV radiation, and can accumulate in the skin over time. This accumulation of AGEs in the skin is a natural hallmark of aging as it subsequently alters the structure and bioelastic properties of collagen and elastin fibres. When these proteins become glycated and cross-linked, they can become more stiff and brittle, leading to a loss of elasticity and firmness in the skin⁴. To counteract this, our Skin Shield harnesses the power of Pink Algae's anti-glycative benefits by drawing on this unique microalga's adaptations to solar stress.

To protect the skin's hydration throughout the day's challenging conditions, our Skin Shield includes a supercharged hydrating complex. Advanced hydrating powerhouse, Saccharide Isomerate, demonstrates an ability to increase the skin's natural synthesis of hyaluronic acid, accompanied by an advanced hyaluronic acid that deeply infuses moisture into the skin. Carefully selected phytolipids enhance the skin barrier, safeguarding and sealing in hydration. By both delivering and enhancing Hyaluronic Acid in the skin, combined with reducing moisture loss across its barrier, our 72-hour moisture lock is designed to impart prolonged hydration.

This silky formulation is also designed with absorption in mind, reducing the white appearance left on the skin's surface as the formulation absorbs into the skin.

Formulation Validation

To validate product action of SPF 30 protection, independent testing was performed on the formulation. The results support achievement of this key formulation objective – robust and reliable achievement of SPF 30.

Impact Investigated	Methodology Summary	Results
Assessing the achievement of Sun Protection Factor 30 (SPF 30)	Testing to meet the AS/NZS standard 2604 based on the Internation Standards	Verification of Compliance with AS/NZS Sun Protection Factor (SPF) Standard.
	ISO 24445 & ISO 24444.	Every batch is AS/NZS SPF testea before it is released for sale.

Skin Shield SPF 30 Summary

Skin Shield SPF 30 pairs broad spectrum UVA/UVB protection with protection against a wide spectrum of daily skin stressors while simultaneously improving the condition of the skin through its 72-hour moisture lock technology. Skincare meets SPF in this innovative formulation that delivers so much more than simply a sunscreen.

References

- Puizina-Ivić N. Skin aging. *Acta Dermatovenerol Alp Pannonica Adriat*. 2008 Jun;17(2):47-54. PMID: 18709289.
- Frank R. de Gruijl; Photocarcinogenesis: UVA vs. UVB Radiation. Skin Pharmacology and Applied Skin Physiology 1 October 2002; 15 (5): 316–320. https://doi.org/10.1159/000064535
- 3 Sander M, Sander M, Burbidge T, Beecker J. The efficacy and safety of sunscreen use for the prevention of skin cancer. CMAJ. 2020 Dec 14;192(50):E1802-E1808. doi: 10.1503/cmaj.201085. PMID: 33318091; PMCID: PMC7759112.
- 4 Paraskevi Gkogkolou & Markus Böhm (2012) Advanced glycation end products, *Dermato-Endocrinology*, 4:3, 259-270, DOI: 10.4161/derm.22028

All Emma Lewisham products are formulated according to Regulation (EC) N° 1223/2009 which is the main European regulatory framework to strengthen the safety of finished cosmetic products. Emma Lewisham products have been independently reviewed by an expert safety assessor according to these regulations and issued a safety certificate. As part of this review, they have confirmed there are no groups of people, such as pregnant or breastfeeding women, for which Emma Lewisham products would be unsafe.

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