

Longevity: From Anti-Ageing to Healthy Ageing



Redefining beauty, the cosmetics industry is undergoing a transformation – moving away from the sole battle against wrinkles towards a holistic approach that places long-term skin health at the forefront. Longevity means not only enhancing the skin's appearance in the short term but also preserving its vitality, structure and function for years to come by focusing on prevention, protection and regeneration.

Understanding Skin Ageing

Skin ageing is influenced by both intrinsic factors (genetics, hormonal changes, natural cellular ageing) and extrinsic factors (UV exposure, pollution, blue light, oxidative stress, poor diet, lack of sleep), which often accelerate the process.

Instead of reacting only once visible signs appear, longevity skincare focuses on early support, giving the skin the resources it needs in time to maintain vitality, elasticity and resilience.

This is further reinforced by a healthy lifestyle with balanced nutrition, restful sleep, hydration and regular exercise.

This holistic perspective reflects the growing demand for sustainable, science-backed skincare that promotes long-term well-being.

The Pillars of Skin Longevity

A modern longevity approach strategically combines multiple principles that work synergistically against the main causes of skin ageing:

- **Protection** of the skin from extrinsic factors – such as UV radiation, blue light, pollution and oxidative stress – to minimise photo-ageing and environmentally induced skin damage
- **Repair** of cellular structures by supporting regeneration and strengthening the skin barrier to counteract damage caused by free radicals, stress or external aggressors
- **Preservation** of youthfulness by stimulating collagen and elastin production, reducing trans-epidermal water loss and optimising skin hydration
- **Balance** in the skin microbiome and reduction of chronic micro-inflammations to slow down inflammation-driven ageing processes (*inflammageing*)



Key Ingredients for Skin Longevity

For healthy, resilient and radiant skin, ingredients that actively support cell repair, regeneration and barrier function are essential. Particularly effective are the following:

- **Antioxidants and free radical scavengers:** neutralise free radicals and protect against oxidative stress, one of the main drivers of skin ageing
- **Anti-inflammatory agents:** calm existing micro-inflammations and help prevent their formation
- **Moisturisers:** provide deep, long-lasting hydration and improve the skin's moisture balance
- **Barrier and cell repair agents:** strengthen skin structure and promote regeneration processes
- **Collagen boosters:** stimulate collagen and elastin production for improved firmness and elasticity

RAHN Active Ingredient Solutions for Healthy Ageing

ASTACOS® OL50 – The Red Diamond for Long-Lasting Skin Health

**ASTACOS® OL50** is a natural oleoresin derived from *Haematococcus pluvialis*, a freshwater micro-alga. Its key component, astaxanthin, is a naturally occurring carotenoid that microalgae produce as a defence mechanism against harsh environmental conditions. Embedded in certified organic jojoba oil, it ranks among the most powerful known antioxidants, is COSMOS-certified and demonstrates nearly three times the antioxidant capacity of comparable astaxanthin sources.

‘ASTACOS® OL50 – The natural power against environmental stressors’

Key Benefits at a Glance:

- Neutralises free radicals and reduces oxidative inflammation
- Enhances regeneration and improves skin density
- Reduces wrinkles and pigmentation spots while increasing firmness
- Promotes a more even skin tone and a radiant complexion



Formulation Flexibility:

Thanks to its oily matrix, **ASTACOS® OL50** can be easily incorporated into a wide range of cosmetic applications – from high-performance serums and creams to innovative two-phase formulations.

Formulation Guidelines:

- Recommended use level: 0.01 – 0.3%
- pH stability: pH 3.0 – 7.0
- INCI: Simmondsia Chinensis Seed Oil, Haematococcus Pluvialis Extract, Tocopherol, Helianthus Annuus Seed Oil

Synoxyl® AZ – The Shield Against Oxidative Stress\*

**Synoxyl® AZ** works through five complementary mechanisms – from chelating harmful metal ions and inhibiting enzymes to activating cellular defence systems and providing long-term DNA protection, even after UV exposure. Clinical studies show a reduction in inflammatory markers, erythema and visible wrinkles after just four weeks.

‘Synoxyl® AZ – Fivefold defence power against environmental stress’

Key Benefits at a Glance:

- DNA and cell protection safeguards genetic integrity, even after sun exposure
- Reduces inflammatory markers and UV-induced redness
- Smooths wrinkles and improves skin texture



Formulation Guidelines:

- Recommended use level: 0.5 – 1.0%
- Suitable for: serums, emulsions, masks, gels, lotions
- pH range: 5.0 – 7.0
- INCI: Acetyl Zingerone

Recommended for: anti-ageing ranges, postmenopausal care or urban defence concepts

\*Only available for our customers in: AT, CH, FR and the UK

Hydra Synol® DOI – Multifunctional Skin Barrier Strengthenener\*

**Hydra Synol® DOI** goes beyond simple moisturisation: the natural active ingredient **Isosorbide Dicaprylate** specifically strengthens the skin barrier while also regulating inflammatory processes, making the skin more resilient in the long term.

‘Hydra Synol® DOI – The smart moisturiser’

It activates key skin proteins (CD44, AQP3 and ceramide synthase) and supports the formation of special cell junctions (tight junctions and desmosomes) that act like invisible seals and anchors. These hold skin layers tightly together, prevent moisture loss and create a smooth, resilient surface. At the same time, the active ingredient reduces cellular stress and inflammation markers (LDH activity) and soothes irritated skin, and it is therefore ideal for sensitive or barrier-weakened skin types.



Formulation Guidelines:

- Recommended use level: 2 – 4%
- Appearance: colourless, transparent oil
- INCI: Isosorbide Dicaprylate

\*Only available for our customers in: AT, CH, FR and the UK

Ajidew™ – Amino Acid-Based Solutions for Healthy Ageing\*

Based on the mechanisms of the skin's natural moisturising factor (NMF), the Ajidew™ range from Ajinomoto offers two exciting solutions:

**Ajidew™ NL-50** is the sodium salt of *L-pyrrolidone carboxylic acid* (PCA). As a key component of the NMF, it actively binds moisture and sustainably strengthens the skin barrier.

Key Benefits:

- Provides long-lasting hydration without a greasy feel
- Improves fine lines by optimising moisture balance and visibly reduces dark circles
- In combination with L-arginine, supports microcirculation, nutrient delivery and cell renewal

‘Ajidew™ – Amino acid power for deeply hydrated, healthy-looking skin’

Formulation Guidelines:

- Recommended use level: 1 – 3%
- pH stability: 3.0 – 10.0
- INCI: Sodium PCA
- Ideal for: day and night creams, cleansers, eye care and anti-ageing products

\*Only available for our customers in: AT, CH, DE, IE and the UK



**Ajidew™ ZN-100\*** combines PCA with zinc for targeted anti-ageing benefits. It not only hydrates but also helps preserve collagen and strengthens the skin barrier.

Key Benefits:

- Promotes collagen production by supporting vitamin C utilisation
- Inhibits enzymes that break down collagen and elastin
- Strengthens the skin barrier by supporting keratinocyte function
- Promotes an even skin tone

Formulation Guidelines:

- Recommended use level: 0.5 – 1.0%
- pH range: 4.0 – 6.0
- Ideal for: anti-ageing serums, sun care and after-sun products
- Synergy tip: use with stabilised vitamin C derivatives for enhanced anti-ageing effects

\*Only available for our customers in: AT, CH, DE, IE and the UK

Cyclosystem Complex Retinol 33,000 IU/g – The Gentle Retinol

Retinol remains one of the most established actives in anti-ageing cosmetics, but its high efficacy often comes with challenges in terms of skin tolerance and stability. **Cyclosystem Complex Retinol 33,000 IU/g** addresses these issues through cyclodextrin microencapsulation, protecting retinol from oxidation, increasing stability and enabling time-released delivery – for gentle yet effective skin renewal.

‘Cyclosystem Complex Retinol – Maximum efficacy, gentle on skin’

Key Benefits:

- Greater skin tolerability (reduced irritation)
- More efficient activity in the skin
- Higher bioavailability
- Increased efficiency and stability of cell renewal
- Improved water solubility

Formulation Guidelines:

- Recommended use level: 3 – 10%
- pH stability: 5.0 – 8.0
- INCI: Polysorbate 20, Water, Caprylic/Capric Triglyceride, Hydroxypropyl Cyclodextrin, Retinol, Sodium Metabisulfite, Tocopherol, BHT



Vecollage® Fortify GP – The Vegan Collagen for Long-Lasting Skin Health\*

Within the longevity approach, maintaining the structural integrity of the skin is essential. With age, not only hydration but also the density and firmness of the extracellular matrix (ECM) and the dermal–epidermal junction decline.

**Vecollage® Fortify GP** is a vegan, skin-identical type III collagen produced through fermentation. It works via a dual mechanism: stimulating the synthesis of essential structural proteins (collagen I, III, IV, elastin and fibronectin) while inhibiting ECM-degrading enzymes (MMP-3) – thus protecting against age-related fragmentation.

‘Vecollage® Fortify GP – Vegan collagen for firm, youthful-looking skin’

Key Benefits at a Glance:

- Boosts collagen and elastin synthesis for smoother, denser skin
- Inhibits ECM-degrading enzymes and protects against oxidative stress
- Provides a long-lasting firming effect – clinically proven increase in dermal density



Applications:

- Premium anti-ageing serums and creams
- Dermocosmetic skin care

Formulation Guidelines:

- Recommended use level: 0.3 – 3.0%
- pH stability: 3.0 – 7.0
- INCI: Water, Glycerin, Propanediol, sh-Polypeptide-69

\* Only available for our customers in: AT and CH

Resource Hub:

- ➔ Guide Formulation 'Amino Pro-aging Eye Serum' by Ajinomoto
- ➔ Presentation 'Amino Skincare at every Age' by Ajinomoto
- ➔ Guide Formulation 'Natural Astaxanthin' by BDI-Biolife Science
- ➔ Guide Formulation 'Collagen Comfort Toner' by Evonik

- ➔ Guide Formulation 'Forever Young Foundation Drops' by Evonik
- ➔ Presentation 'Vecollage® Fortify GP/ I' by Evonik
- ➔ Presentation 'Empowering Skin to Resist Time' by Sytheon