



Semi-solid preparations with gako unguator devices

Using the gako unguator devices as a compounding solution benefits high product quality

- manufacturing range from 20ml up to 2000ml
- reproducible product quality
- time saving in the manufacturing process
- maximum shelf life due to minimum air impact
- no contamination during mix and transfer > mixing jar = dispensing jar
- accredited quality according to globally recognised standards and relevant practices!
- easy ointment extraction due to movable bottom and single hand principle
- simple and hygienic application directly on the skin

Ageing skin

Ageing of the skin is a complex biological process. Dermatologists are treating an increasing number of patients for this condition.

The consequence of skin ageing is characterized by degeneration of the skin, wrinkling, thinning, pigmentation, dehydration, increased sensitivity and gradual loss of skin elasticity.

Topical treatment with both active pharmaceutical ingredients (APIs) and dermaceutical ingredients (DCIs) is the most effective approach.

Treatment and preventive care for ageing skin is usually chronic. The patient must therefore experience maximum comfort during treatment if compliance is to be forthcoming and optimal results are to be achieved.

Customized treatment of ageing skin

Ageing skin is commonly treated by 'on the spot' anti-wrinkling, depigmentation and elasticity improving therapy. Preventive and restorative skin care is also used, especially on sun-exposed areas.

1. APIs can be selected, based on individual dosing, to meet the patient's specific treatment needs.
2. DCIs can be added to improve and/or recover the skin condition and prevent ageing of the skin.
3. Basic skin care is guaranteed with the proper choice of dermatological vehicles. The vehicles are designed to be suitable for different skin types and serve to nourish the sensitive skin and prevent dehydration.
4. The following preparations can be manufactured with all of the gako unguator devices using the general principle of the Unguator Technology. More information is available on unguator.com

Recommended APIs and DCIs in the treatment of ageing skin¹

API	Function	Indication specific dosage (range)	Common dose frequency
Glycolic acid	Alpha-hydroxy acid. Useful in ameliorating some of the signs of chronic cutaneous photodamage	8%	Twice-daily
Tretinoin (vit. A acid)	Reduces the signs of UV-induced early skin ageing, such as wrinkles, loss of skin elasticity and pigmentation	0.02 to 0.05%	Once-daily before bedtime
Sodium hyaluronate	Moisturizer. Prevents skin changes associated with ageing	1%	Once-daily
DCI	Function	Indication specific dosage (range)	Common dose frequency
Aloe vera extract	Humectant. Natural effective ingredient for improving skin hydration	2 to 10 %	Twice-daily
Arginine HCl	Induces significant increase in urea in the stratum corneum and a continuous increase in skin moisture in ageing skin	2.5%	Twice-daily
Ascorbic acid (vit. C)	Skin anti-ageing effect by inducing the production of collagenase-1 and collagenase-3, as well as enzymes important for the production of collagen, and inhibitors of matrix metalloproteinase (MMP)	5 to 15 %	Once-daily
Lactic acid	Useful in ameliorating some of the signs of chronic cutaneous photodamage	8%	Once-daily before bedtime
Nicotinamide (vit. B3)	Regulates cell metabolism an regeneration, and shows improvement in skin elasticity, erythema and pigmentation	2 to 5%	Once-daily
Retinol (vit. A)	Induces the biosynthesis of collagen and reduces the expression of MMP (collagenase-1)	0.4%	Once-daily
Tocopherol (vit. E)	Acts by smoothing the skin and increasing the ability of the stratum corneum to maintain its humidity and contributes to photoprotection of the skin	2 to 10%	Once-daily

Recommended vehicles for compounding and basic skin care in the treatment of ageing skin

Vehicle	Skin type profile	Skin types
Versatile™ Vanishing O/W cream base		Oily skin Very dehydrated skin
Fitalite™ Natural gel cream base		Balanced skin Affected skin
Nourilite™ Vanishing O/W emulsion base		Dehydrated skin Specific skin area
Seraqua™ Ultra-light O/W serum base		

¹ Literature references available upon request.

Compounding formulations for ageing skin

Rx/ Lactic acid 8% in Nourilite™ S. Apply once-daily before bedtime	Rx/ Retinol (vit. A) 0.4% in Seraqua™ S. Apply once-daily	Rx/ Glycolic acid 8% in Versatile™ S. Apply twice-daily
Rx/ Tretinoin (vit. A acid) 0.05% in Seraqua™ S. Apply once-daily before bedtime	Rx/ Nicotinamide (vit. B3) 5% Tocopherol (vit. E) 5% in Nourilite™ S. Apply once-daily	Rx/ Aloe vera extract 5% in Fitalite™ S. Apply twice-daily

Compounding formulations are based on Fagron Advanced Derma, a solution of our partner Fagron.

Disclaimer: While a great deal of effort has been made to ensure the accuracy of the formulations contained herein, no claims are made as to the uses, safety, efficacy, or bioavailability of these recommendations. The content of this brochure cannot be construed as (medical) advice, recommendation, or opinion. Medical professionals, doctors, and compounding pharmacists using this information are advised to do so solely if appropriate in their own professional opinion and judgment. Gako does not accept and cannot be held responsible or liable in any case for the formulations or information contained herein.