

Nanotechnology Positions Ferulac Peel on Cutting Edge of Topical Skin Rejuvenation



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Ferulac Peel Classic



Ferulac Peel Plus

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Applying the innovative science of nanotechnology, Sesderma has created a new line of skincare products called Nanotech. This line includes the Ferulac Peel, a patented antioxidant rich, superficial peeling system designed to deliver multiple benefits with no irritation or risk of hyperpigmentation for any Fitzpatrick skin type.

Used in the dermatologist's office, this system can reduce the signs of photo-aging, such as fine wrinkles, promote even skin tone by reducing hyperpigmentation, and return skin to its natural brightness by stimulating cell replacement. Overall skin texture is said to improve, and the treatment boosts hydration by increasing the level of ceramides in the skin to help prevent water loss. For patients with rosacea and acne, the treatment can reduce sebum production, improve the appearance of scars and diminish pore size.

Ferulac Peel harnesses the skin rejuvenating power of ferulic acid, phloretin, retinol, malic acid, lactic acid and citric acid derived from fruit peels. It goes a step further by optimizing the effectiveness of the ingredients with nanosome delivery and penetration. "Ferulac Peel is a very potent and safe peel system," said Gabriel Serrano, M.D., Ph.D., a professor of dermatology at General Hospital in Valencia, Spain, and founder and president of Sesderma. "Beginning with the first treatment, patients report that their skin feels smoother and tighter and looks lighter with a youthful glow."

Dr. Serrano explained that ferulic acid has strong antioxidant properties which fight against free radicals, such as reactive oxygen

species (ROS). ROS have been implicated in DNA damage, cancer and accelerated aging. Ferulic acid also increases protection against ultraviolet radiation, has anti-inflammatory properties and enhances the antioxidant power of vitamins C and E. Its depigmentation effects derive from its function as a non-competitive inhibitor of tyrosinase.

Phloretin, also a powerful antioxidant and a non-competitive inhibitor of tyrosinase, interacts with the lipids of the stratum corneum, allowing better penetration of the treatment's other active ingredients. In addition, phloretin inhibits matrix metalloproteinase-1, the result of which is decreased degradation of collagen and elastin. The malic, citric and lactic acids contribute exfoliation properties; further enhance penetration of the Ferulac Peel's other active ingredients; and heighten the synergy between the ferulic acid and phloretin. The retinol adds anti-aging and anti-acne effects.

All of the ingredients in the Ferulac Peel are encapsulated in nanosomes, tiny vesicles measuring 50 to 200 nm that are completely assimilable by the body. They are similar in composition and structure to that of cell membranes. The nanosomes themselves have resurfacing, anti-inflammatory, antibacterial, clarifying and sebum-regulating properties; and given their size are capable of selectively transporting the active ingredients to the appropriate layers of skin. They allow controlled release of the embedded active ingredients, which enhances their effects. Nanosomes also protect the embedded ingredients, bringing greater stability to the formulation. Finally, given their level

of penetration and controlled release, smaller amounts of active ingredients can be used compared with other peel treatments, which reduces toxicity and other side effects.

Dr. Serrano described Ferulac Peel as a very simple and fast system. "Each treatment can take between 15 and 20 minutes," he said. After the skin is cleaned and degreased and a suitable protectant is applied to sensitive areas, two to three coats of Ferulac Peel Classic solution are massaged into the skin. When the solution has dried, appearing as a light white mask, two coats of Ferulac Peel Plus solution are applied, massaged between each coat, and allowed to dry.

Next, one to two coats of Ferulac Nano Additive Mist are applied. When the mist dries, the treatment is finished with Retises Nanopeel 1% gel to seal the area. After approximately 12 hours, the patient can wash the area with a mild cleansing gel. Patients should not expose treated skin to the sun or high temperatures for three to seven days after the peel treatment. "Most patients will peel starting three days after treatment, which usually lasts for four days," Dr. Serrano explained. "Any necessary post-peel home care will be recommended by the dermatologist based on the condition or conditions being treated."

According to Dr. Serrano, the Ferulac Peel system can be applied every 7 to 14 days, and four to ten treatments typically produce the best results. The Ferulac Peel will not produce burning or itching during application, but patients should be informed ahead of time that they will

smell ethanol during their treatments. "This can be relieved by using a small hand-held fan, which does not cause rapid volatilization of the Ferulac Peel as would be expected with salicylic acid peels," Dr. Serrano explained.

"Another advantage of the Ferulac Peel system is that it can be combined with other superficial peels, such as glycolic, lactic and arginine peels, once they are washed out," Dr. Serrano added. The system can also be integrated with Jessner's peels being applied as coats. "Application of a Ferulac Peel before or after microdermabrasion or IPL procedures can enhance the results of these treatments," he continued. "The addition may not only reduce adverse effects, such as inflammation, oxidative stress or lipid peroxidation, but also enhance healing and promote collagen synthesis. Epidermal thickness, hydration and luminosity increase, while better skin texture emerges and pore size decreases."

Dr. Serrano also noted, "Ferulac Classic can be used at the same time as oral Isotretinoin treatment for acne or with other topical retinoic acid therapies. When that is done, however, the number of coats should be reduced to two, the time between peeling treatments should be extended to 15 to 30 days, and sealing with retinol should be avoided to prevent increased dryness."

The Ferulac Peel was developed to follow Sesderma's philosophy, which is providing great results in a short time, while ensuring the integrity of the skin. Dr. Serrano pointed out that the peel can be used not only on the face but on skin anywhere on the body.



Retises Nanopeel Gel 1%

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