EXILVA THE NATURAL PERFORMANCE ENHANCER

APPLICATION BULLETIN

A MICROFIBRILLATED CELLULOSE FOR COSMETIC SYSTEMS

EXILVA: A NATURAL AND SUSTAINABLE SOFT FOCUS ADDITIVE

Exilva is a completely natural and infinitely sustainable cellulose-based performance enhancer that performs as a multifunctional additive in cosmetic systems, as well as increasing formulation efficiency, reducing CO2 footprint and creating exciting opportunities for innovation.

EXILVA HAS A PROVEN EFFECT ON SOFT FOCUS

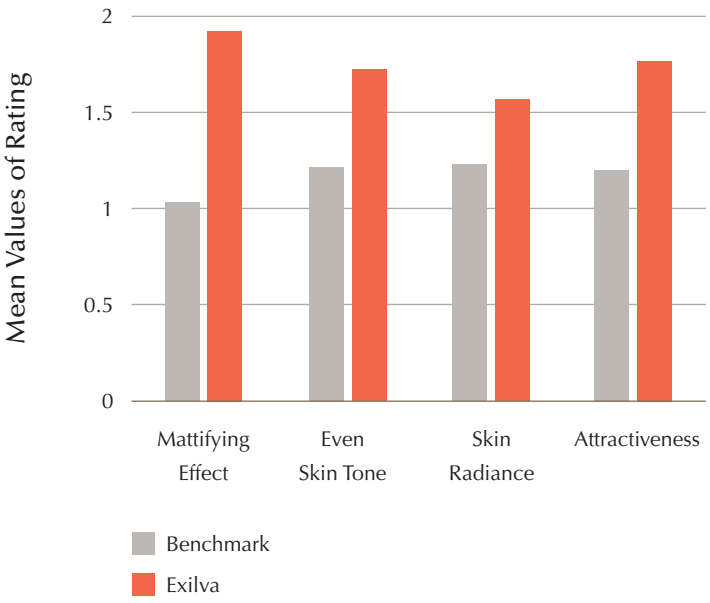
Generating a cream that has the ability to give skin a younger and more attractive appearance, with immediate effect, is paramount for skincare products. Soft Focus Effect is the term used to describe this performance, which is most commonly obtained by using inorganic compounds to scatter light hitting the surface in all directions. Inorganic compounds however tend to make the cream or the formulation tacky and sticky.

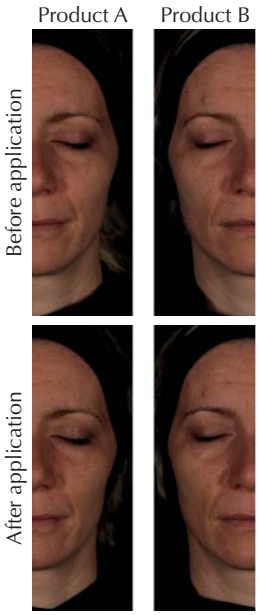
Exilva, a multifunctional additive in cosmetic formulations, can now document its Soft Focus Effect in creams.This effect is made possible through the three dimensional network formation of Exilva's cellulose microfibers. The microfibers form flexible "aggregates" with irregular shapes, leading to diffuse

transmission and reflection of light from the skin's surface, minimizing the visibility of skin imperfections.

To verify the potential of Exilva as an ingredient with Soft Focus Effect, a pilot study was conducted. This study used a so-called Efficacy Evaluation of Mattifying Effect in Cosmetic Products by Image Evaluation. The assessment of the pictures by six trained raters was performed to evaluate the products regarding the mattifying effect and further parameters such as "even skin tone", "skin radiance" and "attractiveness". The half-face images before and after product application were presented blindly to the raters for direct comparison. The performance of a Soft Focus Face Cream containing Exilva (INCI: Cellulose) was proven to be superior to a similar formulation containing a reference soft focus additive (INCI: Sodium Potassium, Aluminium Silicate, Titanium Dioxide, Silica). The principles of Good Clinical Practice (GCP) were used as a guide of reference for this study. The comparison of assessment times showed a significantly better evaluation after the product containing Exilva was applied. A clear difference could be seen in comparison to the state before application. This was true for the parameters: "Mattifying Effect", "Even Skin Tone "and "Attractiveness" for Soft Focus Face Cream containing Exilva. No significant difference were found for the parameter "Skin Radiance".

In addition, Exilva has already shown potential to improve skin feel in a formulation. Exilva can therefore both have a Soft Focus effect and a positive skin feel effect.





GRAPH AND PICTURES

In the graph and pictures above, you can see that the soft focus face cream with Exilva (Product A) improves the mattifying effect and attractiveness of the skin significantly more than the cream with the reference additive (Product B). The images are rated as 1 when the effect of one of the parameters is less and 2 when the effect is more. Exilva has a slightly better effect on skin tone and skin radiance than the reference additive.

CONCLUSION

As one of its multifunctional properties, Exilva provides an excellent Soft Focus Effect when used in a face cream. The performance of Exilva in this pilot study, when compared to the same concentration of active material, is better than that of the reference Soft Focus additive.

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FORMULATIONS TESTED

Ingredient	INCI	Supplier	A	B
	Water phase			
demin. Water *	Aqua		53.10	71.10
Dissolvine GL-47-S	Tetrasodium Glutamate Diacetate	AkzoNobel	0.30	0.30
dermosoft LP	Caprylyl Glycol, Glycerin,Glyceryl Caprylate, Phenylpropanol	Dr. Straetmans	1.50	1.50
Exilva 10%	Cellulose	Borregaard	20.00	
	Thickener phase			
Glycerol (99.5%)	Glycerin	Merck	5.00	5.00
Amaze XT	Dehydroxanthan Gum	AkzoNobel	0.30	0.30
	Oil phase			
Tego Care PSC 3	Polyglyceryl-3 Dicitrate/Stearate	Evonik	3.00	3.00
Amphisol K	Potassium Cetyl Phosphate	DSM	1.00	1.00
Tegin M Pellets	Glyceryl Stearate	Evonik	1.25	1.25
Lanette O	Cetearyl Alcohol	BASF	1.25	1.25
Miglyol 812	Caprylic/Capric Triglyceride	Oleo Cremer	3.00	3.00
Cetiol CC	Dicaprylyl Carbonate	BASF	3.00	3.00
Eutanol G	Octyldodecanol	BASF	3.00	3.00
Xiameter PMX 200/20cs	Dimethicone	Dow Corning	4.00	4.00
Benchmark Soft Focus Additive	Sodium Potassium, Aluminum Silicate, Titanium Dioxide, Silica	-		2.00
	Perfum phase			
Cotton Water E_1407987	Parfum	Mane	0.30	0.30
			100.00	100.00