

Ceramide 2 & Pal -VGVAPG

Function:

Anti-ageing, wrinkle smoothing and cutaneous barrier repair.

Definition:

Association of ceramide 2, the *stratum corneum* cement and the palmitoylated matrikine Pal-Val-Gly-Val-Ala-Pro-Gly.

Properties:

Dermaxyl® stimulates cell communication and then repairs the age related skin damage.

Characteristics:

Matrikines are messenger peptides specifically involved in repairing damage to the cutaneous matrix, VGVAPG is the spring fragment of elastin.

Points of interest:

Pal-VGVAPG is chemotactic, attracting fibroblasts and monocytes onto the site of matrix repair.

Origin:

Synthetic.

INCI name:

(Check PCPC on-line dictionary for latest INCI name)
C12-15 Alkyl Benzoate – Tribehenin – Ceramide NG – PEG 10 Phytosterol* – Palmitoyl Hexapeptide-12**

* former INCI name: PEG-10 Rapeseed Sterol

** former INCI name: Palmitoyl Oligopeptide

Applications:

Skincare and make-up geared to preventing and fighting wrinkles.

Formulation:

Oil soluble.
Melt extemporaneously at 85°C and incorporate during the emulsion formation.

Recommended use level:

2%

Patent:

WO 2004/101609



Targeted intervention:

Anti-ageing tactics help brush away the footprints of father Time



REDUCTION OF THE MAIN WRINKLE VOLUME UP TO

-36%

In vitro tests

● Activation of skin matrix cleansing

Stimulation of the genetic expression of Granulocyte Chemotactic Protein (GCP-2) by DNA array on a 3D keratinocyte model incubated with Pal-VGVAPG. GCP-2 is a chemotactic protein able to recruit cells, involved in the preparation and cleansing of the site, to the damaged area.

Stimulation of GCP-2 expression by Pal-VGVAPG

227%

DERMAXYL® BOOSTS THE CELL COMMUNICATION AND DERMAL REPAIR MECHANISMS.

In vivo tests

● Anti-wrinkle properties

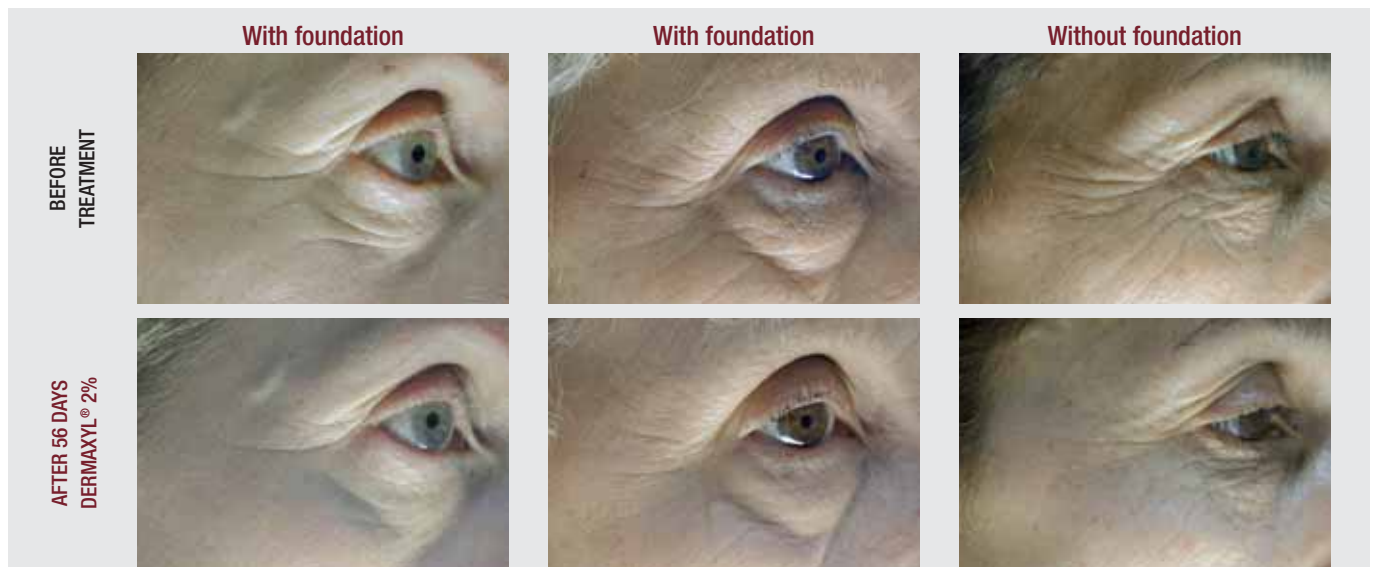
Study performed using 24 female volunteers aged from 42 to 66 years.

Daily application of a liquid foundation (pigmented or non-pigmented) containing 2% Dermaxyl®, for two months.

Evaluation by image analysis (profilometry).

Since pigments tend to accentuate the appearance of wrinkles, photographs were taken with and without foundation, before and after 56 days of treatment.

	Values	Mean	Maximum
Volume of the main wrinkle		-13.7%	-36%
Depth of the main wrinkle		-10.1%	-27%
Surface occupied by deep wrinkles		-40.3%	-98%
Surface occupied by medium wrinkles		-24.5%	-86%



Formulation

Anti-Ageing Emulsion with Dermaxyl® Indicative formula ref.: SED 0309402 A

Part A%		Part E%	
Water Deionised	qs 100	Sodium Hydroxide 30%	0.50
Ultrez 10 (Carbomer)	0.25	Water Deionised	4.00
Part B%		Part F%	
Glycerin	3.50	DERMAXYL® (Sederma)	0.20
Preservative	qs	Part G%	
Part C%		Perfume (Erivole)	0.10
Brij S10 SS (Stearth-10, Croda)	1.50	Protocol	
Crodafos CS 20 Acid (Cetearyl Alcohol and Ceteth-20 Phosphate and Dicapryl Phosphate, Croda)	3.50	Disperse the Ultrez 10 in water. Allow to swell for 20 minutes. Heat Part B until dissolution then add it to Part A. Heat to 80°C in bain-marie. Weigh Part C and heat to 80°C in bain-marie. Mix well. Pour Part C into Part A+B with Staro stirring (s=30%). Extemporaneously, add melted Part F at around 80°C. Then add Part D. Homogenize well then neutralize with Part E at around 50°C. Add Part C extemporaneously at around 35°C. pH: 6.20	
Dimethicone 5 cs (Dow Corning)	2.00	Non-guarantee: This formulation has been subjected to limited stability tests and has been shown to perform well. However formulators adopting this approach should ensure to their own satisfaction long term stability and functionality. It is good practice to conduct safety tests on all final formulations prior to marketing. Suggested uses should not be taken as an inducement to infringe any existing patents.	
Crodamol OSU (Diethylhexyl Succinate, Croda)	7.00		
Span 60 (Sorbitan Stearate, Croda)	0.40		
Part D%			
Potassium Sorbate	0.10		

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