

Active Beauty  
Vegetan<sup>®</sup> Premium plus  
Smart self-tanner

Crafted by white technology



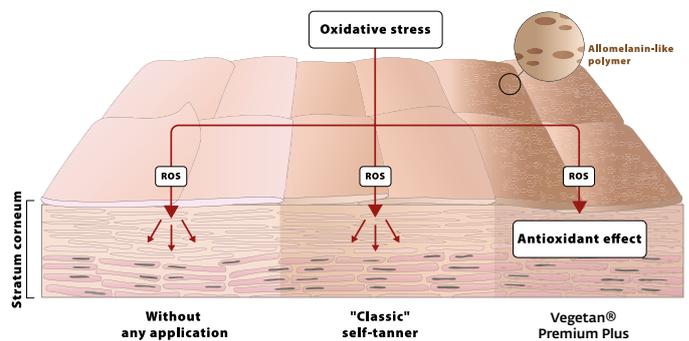
# Focus on the product

Vegetan® Premium Plus is a combination of dihydroxyacetone (DHA) obtained by biotechnology and an allomelanin-like polymer. Vegetan® Premium Plus is the first active self-tanner with optimised performances and antioxidant properties. It delivers a more natural, deeper summer tan to the skin while protecting it from oxidative stress.

## Sunless tanning mechanism

Vegetan® Premium Plus generates a harmless skin colouring through two complementary activities:

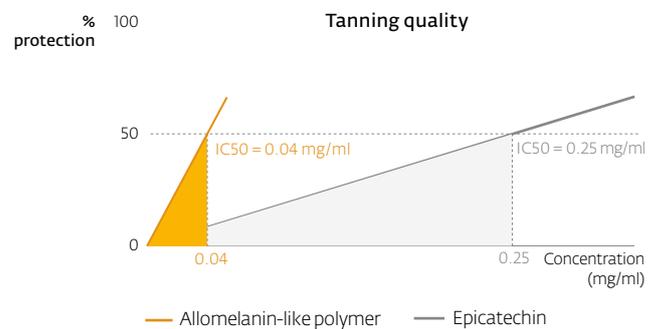
- ▶ DHA reacts with amines, peptides and amino acids of the *stratum corneum*, producing brown melanoidins.
- ▶ The allomelanin-like polymer improves the skin colouration obtained with DHA by interacting with the corneocytes. It also protects DNA from oxidative damage.



## Antioxidant activity (in vitro test)

Cell cultures were treated with the allomelanin-like polymer or epicatechin (antioxidant positive control) and H<sub>2</sub>O<sub>2</sub> was added. The antioxidant activity was assessed through IC<sub>50</sub> measurement.

**Results:** Vegetan® Premium Plus protects DNA from oxidative stress thanks to its antioxidant properties.



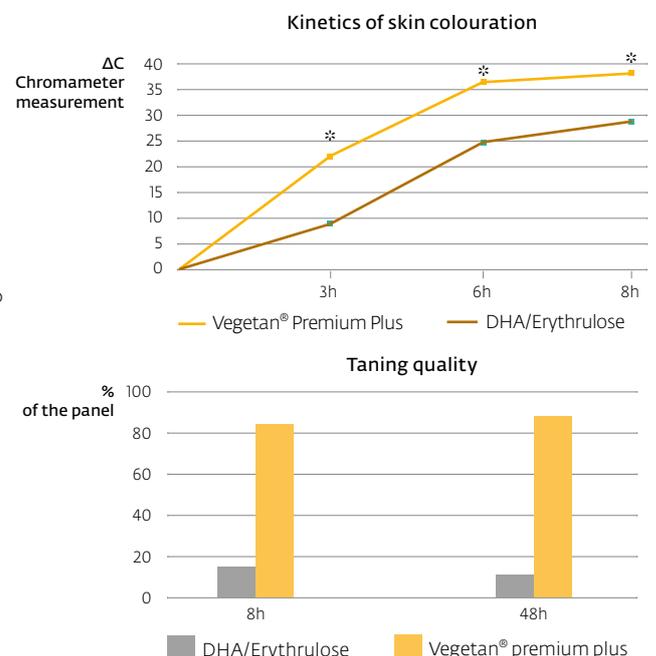
## Self-tanning activity (in vivo test)

A panel (20 volunteers, phototypes I and II) applied on the forearm area two self-tanning creams formulated with Vegetan® Premium Plus 5% or DHA 5% + Erythrulose 2.15%.

Colour intensity was assessed through Chroma measurement (C). The panel compared the natural aspect of the tanning for Vegetan® Premium Plus and DHA/Erythrulose (double blind test).

**Results:** Vegetan® Premium Plus significantly improves colour intensity and increases speed of colouration.

\* p < 0.05 Statistically significant vs DHA / Erythrulose





# Summary

## Technical information

INCI:	Dihydroxyacetone (and) Melanin
Origin:	Biotechnology
Preservation:	Preservative free
Dosage:	2-15%
Appearance:	Liquid
Solubility:	Water soluble

## Claims

Applications: Self-tanning creams, glowing products, lotions and sprays, gels, mousses, wipes.

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