CLAIM SUBSTANTIATION

April 2011

In vitro tests

Mitosis rate

Evaluation on root sheath keratinocytes after a 14-day culture of hair follicles. Biotinyl-GHK (2 ppm) stimulates Ki-67 expression, indicating enhanced cell proliferation.

Stimulation of hair growth

Hair follicles are incubated for 14 days with biotinyl-GHK 2 ppm and 5 ppm.

Hair anchorage

Hair follicles are incubated for 14 days with biotinyl-GHK (2 ppm).

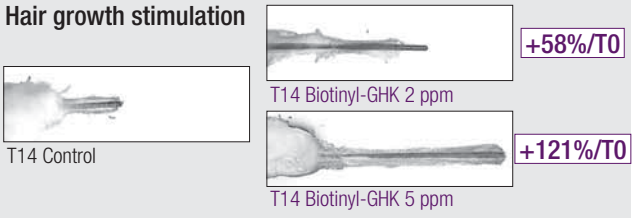
- Morphological observation of the dermis/root sheath junction.

The persisting dermis/root sheath junction is thicker and recovers its normal sinusoidal shape.

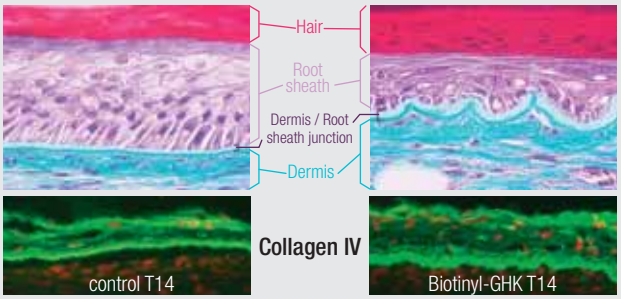
- Laminin 5 and collagen IV are revealed by immunofluorescence.

Presence of adhesion molecules		
Adhesion molecules	**T14 Control**	**T14 Biotinyl-GHK**
Laminin 5	+	+++
Collagen IV	+	++++

Hair growth stimulation



Morphological observation



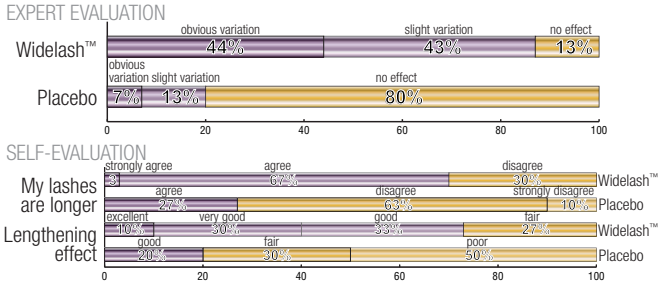
Collagen IV

Clinical study

Double-blind clinical study with 30 female volunteers applying daily a Volumising Black Mascara containing 2% Widelash™ on one eye *versus* Volumising Black Mascara placebo on the other one. Measurements by image analysis at T0, 15 days and 30 days. Evaluation by trained experts and self-evaluation after 30 days.

Length of the eyelashes

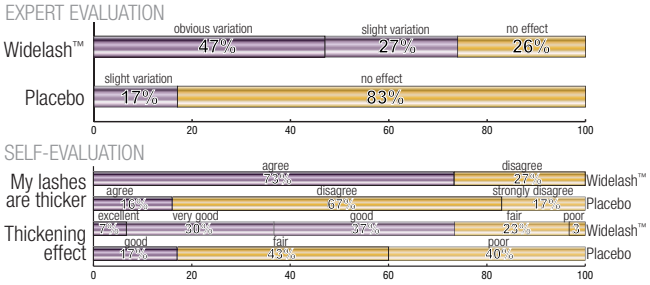
- T 15 days ..... **+11%/T0**, p<0.001, up to **+32%, x2.6/placebo**
- T 30 days ..... **+17%/T0**, p<0.001, up to **+43%, x2.7/placebo**



Widelash™ visibly strengthens and lengthens eyelashes.

Diameter of the eyelashes

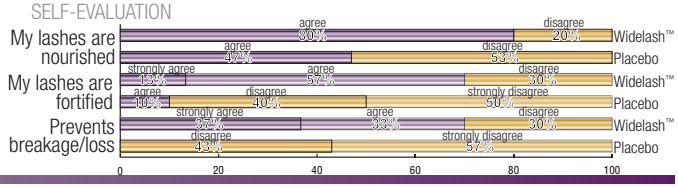
- T 15 days ..... **+12%/T0**, p<0.001, up to **+33%, x2.9/placebo**
- T 30 days ..... **+19%/T0**, p<0.001, up to **+40%, x2.6/placebo**



Strengthening effect

Loss of eyelashes:

- T 15 days ..... **-3.7 eyelashes**/placebo, p<0.001
- T 30 days ..... **-9.1 eyelashes**/placebo, p<0.001



Formulation

Primer mascara with WIDELASH™

Suggested formula Ref.: SED1011911 L

Part A ..... %	
Water deionised	40.00
Optasense™ G83 *(Carbomer, Croda)*	0.30
Part B ..... %	
Water deionised	qsp 100
PVP K30	2.00
Part C ..... %	
Potassium Sorbate	0.10
Part D ..... %	
Water deionised	3.50
Sodium hydroxide 30%	0.35
Part E ..... %	
Butylene Glycol	3.00
Preservative	qs
Natrosol 250 M *(Hydroxyethyl Cellulose, Aqualon)*	0.75
Part F ..... %	
Alcohol	5.00
Part G ..... %	
Widelash™ *(Sederma)*	2.00
Part H ..... %	
Fragrance (Douceur Bleuet) *(Expressions Parfumées)*	0.10

Protocol: Part A: disperse the carbomer in the water and allow swelling for 1 hour without stirring. Part B: disperse the PVP K30 in the water with rapid helix stirring (s=600 rpm) and keep on stirring for 30 minutes. Add Part C into Part A with helix stirring (s=500 rpm). Add Part D into Part A+C with blade stirring (s=200 rpm). Weigh and mix Part E. Combine Part E with Part B with helix stirring (s=500 rpm). Allow swelling during 30 minutes. Add Part B+E into Part A+C+D with blade stirring (s=200 rpm) mix well. Add Part F and mix well. Check pH. Add Part G, mix well. Add Part H, mix well.

Non-warranty : This formulation has been subject 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.

v. 140519

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