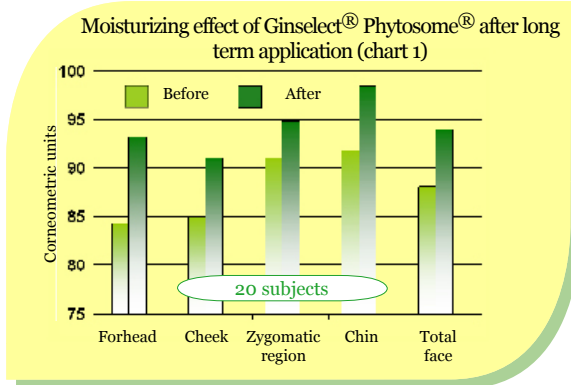




# Ginselect® Phytosome®

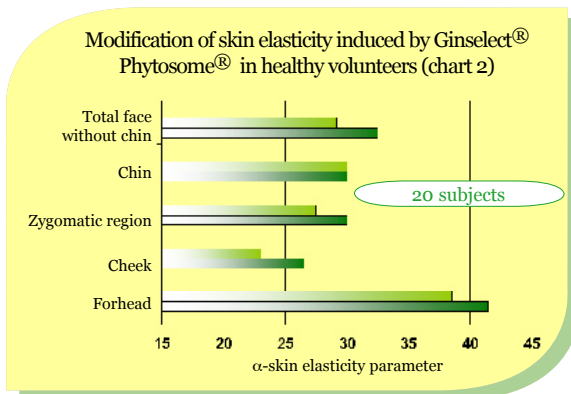
Skin elasticity improver

## Proven efficacy on humans



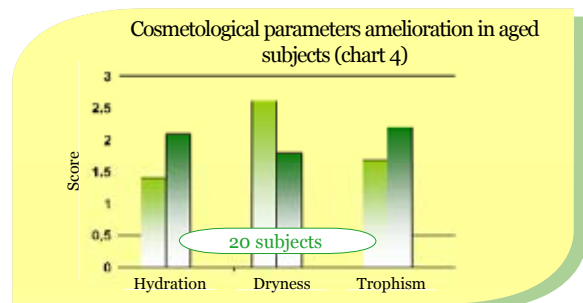
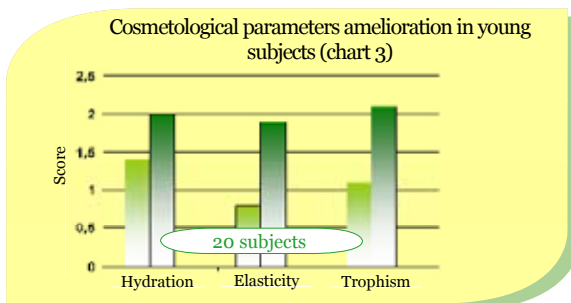
Ginselect® Phytosome®<sup>1</sup> has been tested on a total of 60 healthy subjects (54 female and 6 male, aged between 17 and 88 years) who were divided into different groups depending on the specific experimental procedure applied.

The application of Ginselect® Phytosome® (ampoules of 10 mg/ml, applied daily) showed to ameliorate the hydration of the corneous layers, corresponding to an increase of the corneometric parameters in the skin<sup>1</sup>. Results showed to be statistically significant. This finding, for long term application in elder subjects (chart 1) was confirmed in young subjects (mean age 27 years) within 60 min from the application (acute treatment).



The degree of hydration of deep dermal layers was also evaluated in a further group of subjects (mean age 46). The elasticity coefficient of the skin was measured, demonstrating a statistically significant increase of the "alfa" coefficient, which is directly related to the actual elasticity of the skin<sup>2</sup> (chart 2).

These objective findings have been confirmed in two additional separated trials (chart 3 and 4) conducted on 20 subjects each (treated for 30 days), that showed statistically significant amelioration of various dermatological and cosmetic parameters (scored in arbitrary units from 0 to 4) such as hydration, trophism, elasticity or dryness of the skin of the face.



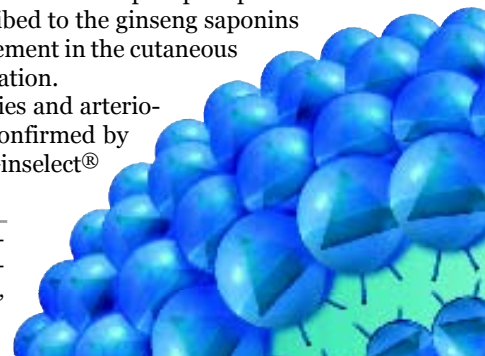
## Mechanism of action

At least two interacting mechanisms of action can be observed.

The hydration of the superficial corneous layer is related to the liposomal-like properties of the phospholipids of the complex. Ginselect® Phytosome® possesses a transdermic action which can be ascribed to the ginseng saponins present in the phospholipidic complex. This is demonstrated by the objective improvement in the cutaneous elasticity and tone, further confirmed by the subjective scores after long term application.

This action could be related to increased blood perfusion "with dilatation of capillaries and arterioles, leading to improved delivery of nutrients to the skin"<sup>4</sup>. This seems to be also confirmed by the regional increase of cutaneous temperature of the hemiface after application of Ginselect® Phytosome® in female subjects older than 40 years<sup>2</sup>.

1. European Patent: EP 0 283 713 - 2. Bombardelli E., Curri S.B., Gariboldi P.: "Cosmetic utilization of complexed of Panax Ginseng saponins with phospholipids in the Phytosome® form" - Fitoterapia Vol. LX, Suppl. to N.1-1989 - 3. Rovesti P., Riv. It. E.P.P.O.S. 203 (1971) - 4. Chang J.C., Cosm. And Toilet. 92, 54 (1977) - 5. Kim, Yang, Lee, Korean Biochem. J. 3, 41 (1988)



# Ginselect® Phytosome®

## Safety Data

Patch-tests were performed in 20 subjects (16 female and 4 male aged between 18 and 41 years) by applying gauzes soaked in 6 ml of an aqueous microdispersion of Ginselect Phytosome® (33 mg/ml). The gauzes were applied occlusively on the skin of the back and kept in place for 48-72 hours.

None of the subjects showed allergic or primary irritative responses of any kind. As far as subchronic tolerability is concerned, a preparation of Ginselect® Phytosome® (33 mg/ml) was applied on the skin of the face of 10 subjects (9 female and 1 male), aged between 50 and 88 years, at a dosage of 3 ml/day for 2 to 4 weeks. None of the subjects showed erythematous, disquamative, vesicular or oedematous reactions or any other sign of primary irritation.

## Characteristics

Ginselect® Phytosome®		Available documentation
Gravimetric content: 30-40% of ginseng typical constituents	Water content: < 3%	Botanical Certificate Method of analysis References Standard Declaration GMO free Safety Data Sheet Published literature Confidential documentation
Form: light brown-yellow powder	Solubility*: Ethoxydiglycol, C12-15 Alkyl Benzoate, Triticum vulgare (Wheat Germ Oil)	
Stability: retesting date at 24 months	(water): dispersible	
Levels of use: up to 2%		
pH: not applicable (insoluble in water)		

\* 50 mg Ginselect® Phytosome® in 10 g of Solvent at 40°-50°C

## Formulation examples

Hair rinse conditioner		Elasticizing gel		Formulation advise
GINSELECT® PHYTOSOME®	1.00 %	GINSELECT® PHYTOSOME®	0.50 %	The physico-chemical characteristics of Ginselect® Phytosome® and its ready dispersibility in water and oil virtually pose no limitations to the preparations of cosmetic formulations. Ginselect® Phytosome®, dispersed in aqueous phase by a homomixer or a turboemulsifier, is suitable for incorporation into monophasic and biphasic systems at a temperature lower than 40°C in order to avoid thermal stress that might damage the phospholipidic chain.
Ceterayl Glucoside	2.50 %	PEG-6 Caprylic/Capric Glycerides	15.00 %	
Cetyl Alcohol	2.50 %	Oleth-20	5.00 %	
Dimethicone	3.00 %	Purified Water	as needed to 100	
Purified water	as needed to 100	Preservatives	as needed	
Preservatives	as needed	Carbomer	1.50 %	
Quaternium-52	2.00 %	Fragrance	0.10 %	
PEG-15 Tallow Polyamine	3.00 %	Sodium Hydroxyde 10% Aq. Sol.	3.00 %	
Lauryldimonium Hydroxypropyl Hydrolyzed		Dimethicone Copolyol	2.50 %	
Collagen	3.00 %	<b>Also suitable for</b>		
Fragrance	0.30 %	Tonic lotions (emulsions and solutions)		
Amodimethicone (and) Tallowtrimonium Chloride (and) Nonoxynol-10	1.00 %	Conditioning shampoo, hair conditioners		
Citric Acid	0.30 %	Antiaging products		

## Did you know...

For thousands of years, extracts of Panax ginseng C.A. Meyer have been systematically used for the prevention or treatment of a variety of conditions frequently associated with aging. Some recent trials, besides the traditional use of Ginseng for skin care, showed the positive effects of ginseng saponins on the structure and mechanical properties of hair, improving distensibility and resistance to breakage<sup>5</sup>.

For centuries, women collecting and selecting ginseng roots were noticed to have particularly nice hands, due to the fact that handling these roots has helped them to keep the skin of their hands young and smooth.

Indena, as the larger producer of ginseng extract, contributed to document the traditional evidence and the use of this in the modern functional cosmetic.

TRADE NAME	INCI (CTFA)	INCI (E.U.)	EINECS N.	CAS N.	INDENA CODE
Ginselect® Phytosome®	Lecithin (syn. Phosphatidylcholine) (and) Panax ginseng Root Extract	Lecithin (syn. Phosphatidylcholine)	232 - 307 - 2	8002 - 43 - 5	9033800
		Panax ginseng Root Extract	296 - 193 - 6 or 283 - 493 - 7	92347 - 06 - 3 or 84650 - 12	