

PUMPKIN SEED

PUMPCOLL

PHYTOCOLLAGEN FROM UPCYCLING



COSMETIC INGREDIENT FROM
UPCYCLING

PRODUCT DESCRIPTION

Pumpkin seed oil production in Europe is done through cold pressing. The cake is the residue of pressing the pumpkin seed and constitutes a by-product with a very high protein content.

There are interesting similarities between the amino acid profile of pumpkin seed proteins and animal collagen, such as the abundance of Glycine, Proline and Alanine.

The proteins of the pumpkin seedcake were upcycled through enzymatic hydrolysis (Bioliqefaction) to produce PUMPCOLL.

PUMPCOLL has been extensively tested *in vivo* to evaluate its cosmetic activities and to compare them in terms of effectiveness with animal derived collagen (hydrolyzed marine collagen).

PUMPCOLL promotes hydration, elasticity, skin tone, plumps the skin and effectively acts on wrinkles with better results than animal collagen.

BENEFITS

- **Promotes skin hydration**
(+25,2% in 1 hour, +17.9 in 14 days, +16.2 in 28 days) (*in vivo* test)
- **Deep moisturization**
(+16.5 in 14 days, +32.5 in 28 days) (*in vivo* test)
- **Increases skin firmness**
(+25.9 in 14 days, +33.3 in 28 days) (*in vivo* test)
- **Increases skin elasticity**
(+8.4 in 14 days, +18.4 in 28 days) (*in vivo* test)
- **Filler effect** (+14.1 in 14 days, +16.9 in 28 days) (*in vivo* test)
- **Reduces skin scaliness**
(-8.5% in 28 days) (*in vivo* test)
- **Reduces wrinkles**
(-28% in 28 days) (*in vivo* test)
- **An alternative to animal collagen**
- **More effective than animal collagen**

TECHNICAL INFORMATION

INCI: aqua, *Cucurbita pepo* seed extract, citric acid, sodium benzoate, potassium sorbate.

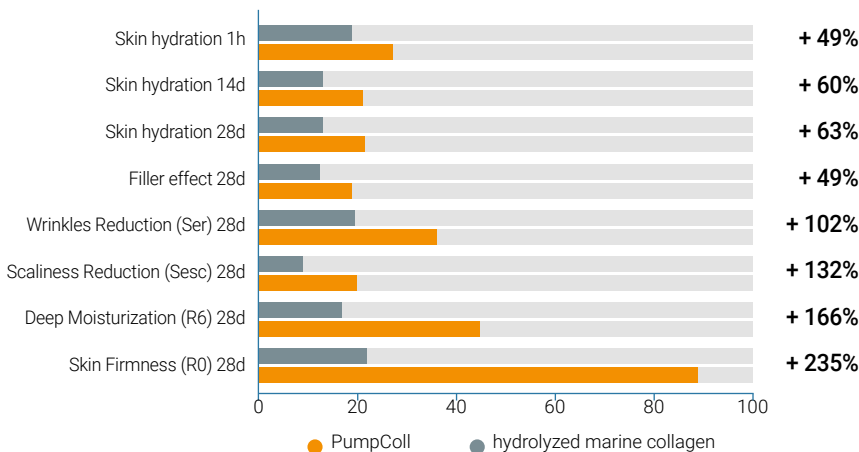
PLANT USED: Pumpkin seedcake of European origin.

TECHNOLOGY: Bioliqefaction Technology.

SUGGESTED CONCENTRATION OF USE: 3% w/w.

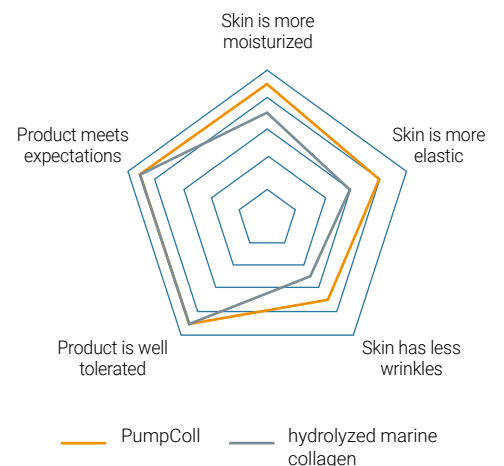
ORGANIC STATUS: COSMOS approved certification in process.

CHINA STATUS: the product is China listed.



Half face comparison instrumental *in vivo* test performed using gel formulations containing 3% w/w of PumpColl or marine hydrolyzed collagen

Customer satisfaction (%)



Half face customer satisfaction questionnaire results using gel formulations containing 3% w/w of PumpColl or marine hydrolyzed collagen (% of positive feedbacks)