



Konjac Mannan gel powder

Description

Konjac Mannan gel powder is a polysaccharide made out of the tuber of Amorphophallus konjac. The plant belongs to the family of Araceae which grows in South-East-Africa and Asia. In China konjac has been known for more than 2000 years as a plant or vegetable with medicinal properties. In Japan konjac has been an established food for more than 1500 years. Nowadays the cultivation and processing of konjac is done with up-to-date techniques. Products made out of konjac are found in many different areas of life: In food, as a food additive, in medicine, chemistry, in petroleum and in the light industry.

Glucomannan is the natural main component of the konjac tuber and its structure is similar to pectin. Konjac Mannan gel powder is a pure natural water soluble thickener, produced out of a plant. During production the tubers are ground and purified mechanically. The konjac flour is then washed and precipitated out with alcohol. By extraction the Konjac Mannan gel powder is obtained. Konjac Mannan gel powder can be combined with other hydro colloidal thickeners like starch or Carrageen. One particle of Konjac Mannan is composed out of extremely long filamentous macromolecules interwoven with each other. When these molecules come into contact with water they swell up to 200 times their original volume resulting in a highly viscous liquid. A 1 % solution of Konjac Mannan gel powder reaches a viscosity of minimum 8.000 mPa s at 20°C. Within the first hour after dissolution Konjac Mannan gel powder becomes highly viscous and reaches its maximum viscosity after one to two hours.

Efficacy

- acts as a moisturizer: **0.7 % Konjac Mannan gel powder improved skin hydration up to 15 %**
- acts as a natural thickener: **1 % Konjac Mannan gel powder in water achieves a viscosity of 16.000 mPa s**
- offers a protective film
- shows outstanding pH stability (2 - 7)

Please have a look at our [Leaflet_2034_Efficacy_e](#) for more details.

Appearance

white to cream white powder

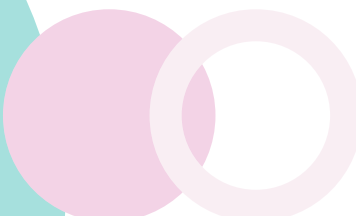
INCI

Glucomannan or Amorphophallus Konjac Root Extract

Registration

CAS-No.....37220-17-0
 EC-No.....253-404-6

Raw material approved by ECOCERT GREENLIFE, conform to the COSMOS Standard.



Nature needs no cosmetics,
 but cosmetics need nature

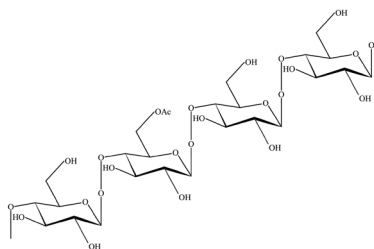
Konjac Mannan gel powder

Preservatives / Stabilizers

none

Characteristics

content of polysaccharides.....>= 80.0 %
viscosity (1% sol.).....8.000 - 22.000 mPa s
loss on drying≤ 12.0 %



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Application

daily cosmetic products
creams and lotions
face masks
gels and ampoules
body care
after sun care
after shave
sensitive care
baby care

Application concentration

skin care formulation.....0.05 - 0.5 %
as thickener / rheology additive.....0.5 - 1.2 %
ampoules.....0.08 - 0.5 %

Incorporation

Konjac Mannan gel powder is dispersed at the best with a minimum of 2 % glycerin to avoid the formation of hydro colloidal lumps. Afterwards the water phase can be added till 90°C under stirring. Precipitation by ethanol with concentrations above 10 %.

Excellent stability in combination with the self-tanning agent dihydroxyacetone (DHA) at pH values 2 - 4 with alpha-hydroxyacids (AHA).

To obtain very stable and high viscous gels we highly recommend combination of Genuvisco[®] carrageenan CG-131 from Kelco and Konjac Mannan gel powder. The ratio is up to:

creams
Konjac Mannan : Carrageenan.....1 : 0.14
hydro gels
Konjac Mannan : Carrageenan.....1 : 0.14

Toxicology

non hazardous in normal use concentration

Storage & Shelf life

Konjac Mannan gel powder should be stored in a dry and light protected place at 10 - 25°C.

In closed original containers the shelf life is 24 months.