

COVASILIC 15

INCI NAME

Silica Dimethyl Silylate

DEFINITION

Covasilic 15 is a special grade of silica treated with dimethylsilylate. This white spheroidal powder (Fig.1) was especially developed to formulate clear gels with a wide range of oils and polyols. The resulting cosmetic products will be clearer and softer than with other treated silica.

TECHNICAL ADVICES

To avoid dusting and to achieve a homogeneous gel, disperse at once at least 6% of **Covasilic 15** in oil and stir slowly until obtention of a clear smooth gel. If necessary, add oil to lower the viscosity.

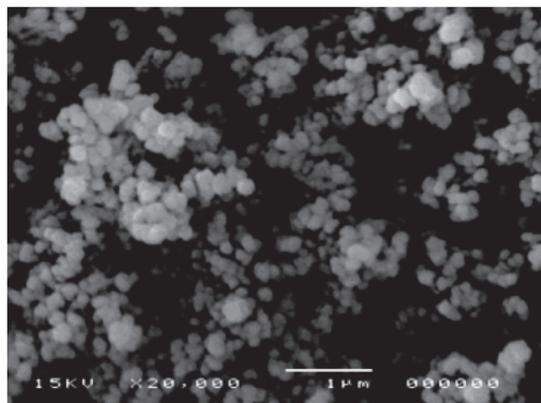


Fig.1

APPLICATIONS

There are 3 main applications :

1. Suspension properties
2. Thickening properties
3. Water in powder emulsion

Other applications could be found.

1. Suspension properties

When using **Covasilic 15**, it is possible to suspend glitters, pearls, texturing powders or pigments in most of the oils keeping fluid and clear the final product.

The necessary percentage of **Covasilic 15** is the maximum of **Covasilic 15** the oil can contain remaining fluid. The structure of this liquid gel is a regular network of silica in the oil.

Bonds between silica are due to hydrogen links and compatibility to oils is due to the treatment.

Polar solvents such as dipropylene glycol, triethyl citrate or propylene carbonate will help to build the structure.



TW 1228_Golden oil

2. Thickening properties

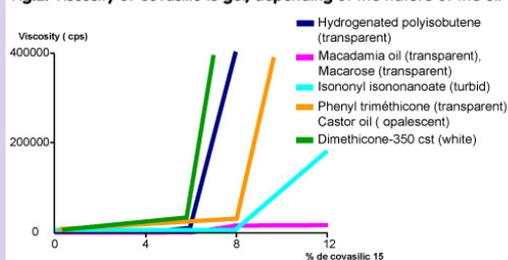
Covasilic 15 can be used to formulate clear fluid or thick oil and polyol based gels. Some oils require the addition of a polar solvent to form a clearer or a more stable gel.

The rheology depends on the nature of the oils (Fig.2) and on the polar solvent .



TW 1448_Water-free cleansing gel

Fig.2: Viscosity of Covasilic 15 gel, depending of the nature of the oil



3. Water-in-powder form

Covasilic 15 can be used to create a very original texture : water in powder emulsion (Fig.3).

When applied on the skin, you can feel a very fresh sensation.

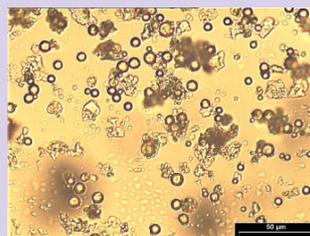


Fig.3 : TW 1363_Water droplets - optical microscope



TW 1363_Water in powder form (40% water)

It is possible to suspend up to 50% of water in powders combining **Covasilic 15** with thickeners such as Covacryl RH following a particular manufacturing procedure.