

## Application Sheet

Pelavie® range consists of natural bioactive materials. Pelavie® Silts are fresh water sediments whereas Pelavie® Peat comes from wetlands. Both are rich in humic acids and other bioactive compounds. Pelavie® Clays are bentonites, which have a capacity to adsorb toxins.

Pelavie® products are mostly used in mask applications or body wraps. They offer detoxifying, firming, regenerating and balancing properties.

Trade Name	INCI Name
Pelavie® Green Clay	Bentonite
Pelavie® Pink Clay	Bentonite
Pelavie® White Clay	Bentonite
Pelavie® Yellow Clay	Bentonite
Pelavie® Peat	Peat*
Pelavie® Black Silt	Silt*
Pelavie® Green Silt	Silt*

\* Pelavie® Peat and Silt products will be preserved with a preservation system of customers choice.

### Benefits

- detoxifying and purifying
- enhanced cell renewal
- improved capillary circulation
- firming

### Properties

- fully natural
- high bioactivity
- high nutrient content



## Application Areas

### Skin Care

Masks and body care wraps are the most common formulations in which Pelavie® products are being used. As peat and silt have a strong colour and heterogeneous consistency, they are not ideal materials for lotions and creams.

## Formulating

### Pelavie® Peat and Silt

When formulating with peat or silt, they should never have a chance to dry out, as the humic substances will become hydrophobic when the water content falls too low. They are quite difficult to re-hydrate once the irreversible coagulative process has taken place. This should also be considered from the final formulation point of view. When formulating a mask, the consistency should be such that it will not completely dry out during the treatment time as otherwise the mask will be very difficult to wash off. This is of importance on products, which are designed to be used at home. When formulating masks for beauty salons and spas, the drying can be avoided with a steamer in case of facial masks, and with wraps, when a body treatment is in question.

It has been noted that at low pH values humic acids aggregate as acidic conditions increase the hydrophobicity of humic substances. The cation binding capacity of humic acids is higher at more alkali pH and the highest skin penetration of organic and organo-mineral components in peat and silt have been observed at pH 8. When silt's pH is adjusted to pH 8, the amount of lower molecular weight humic acids increase by 5-10 times. However, both peat and silt are stable at pH levels normally encountered in cosmetic applications and they are compatible with anionic, cationic and nonionic systems.

It should be noted that the activity of humic acids will drop sharply in presence of oil phase as a layer of oily substance coating humic acid agglomerates is capable of preventing the bioactive skin interaction of the humic substances.

During the formulation process, peat and silt should not be heated to a temperature above 60°C as this will destroy many of the bioactive compounds in the peat and silt. When selecting an appropriate packaging, it should be noted that peat and silt should not be exposed to daylight, as they are photoreactive due to the many bioactive compounds they contain.

### Pelavie® Clays

Pelavie® Clays may be mixed with water or a treatment serum just before application or they may be formulated into emulsion or paste like mask formulations depending on whether they product is designed to be used in a spa as a specialty treatment or at home when a fully formulated product is more appropriate. Pelavie® Clays do not have specific requirements for the formulating process and they tolerate most conditions encountered in cosmetic formulations.

Typical use level: 5-100%

Packaging: Pelavie® Peat and Silt 25 kg open head drums, Pelavie® Clays 25 kg paper bags