

**The cosmetic  
power of the earth**



**COLOR CLAY**

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# Introduction



Geotherapy, mud therapy, clay treatments..., those names can be summarized in one sentence:

“The earth is the mysterious laboratory of life”

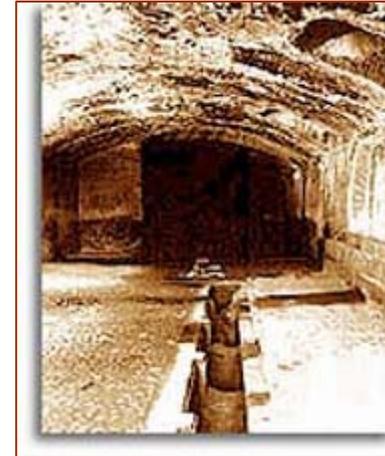
Dr. Manuel Lazaeta Acharan

There is evidence of mud therapy or treatments with clay in antiquity.

For countless generations, people living by lagoons, seas and volcanoes, used natural sediments with aesthetic or medicinal purposes, either to eliminate skin imperfections or for body relaxation.

## A look to our ancestors...

- The Egyptians 5000 years ago applied onto their bodies, muds from banks of the river Nile against inflammations and rheumatism problems.
- Due to its antiseptic properties, clay was used to embalm in the mummification of the bodies.
- The Greeks cured fractures with bandages hardened with clays.
- The famous Hippocrates used mud to relieve abdominal pain and inflammation caused by rheumatism with great success.
- Plinius “ the old” dedicated a whole chapter of his work “The Natural History” to describe the benefits of clay.



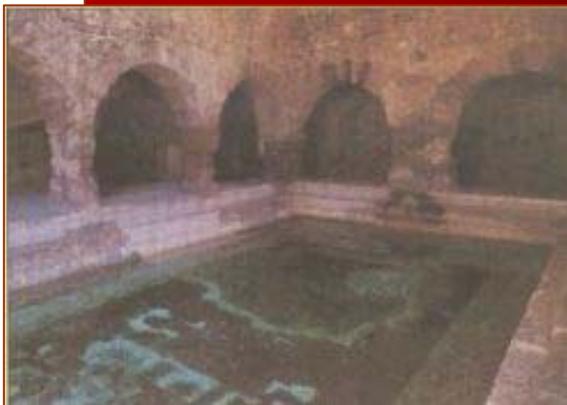
## A look to our ancestors...



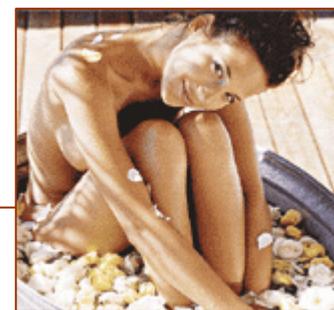
•At the beginning of Christianity, there is evidence of use of a certain red brown clay that had some medicinal properties called Lemnos. It is original from the Greek island of the same name.

•The use of clay made the Abbot Sebastian Kneipp a celebrity in the XIX century. He was applying clay to cure animals and later he used it in human therapy with great success. He said to have relieved human pain: “with a little bit of water, soil and some plants...” Kneipp dedicated his life to develop these “alternative therapies” to cure human beings.

# The clays today



*...From hot springs  
to modern SPA...*



It is curious that in our time, with the latest breakthroughs in medicine and in the cosmetic industry, we find a revival of alternative therapies that use natural elements like medicinal waters, seaweeds, muds, clays...

It is a clear return our origins, to the benefits that treatments with the elements that nature provides us; it is a return to natural and ancestral knowledge.

# A note about mineralogy

Clay is a sedimentary rock, in which minerals come from the decomposition of feldspates due to chemical and atmospheric erosion. In one rock we can find a mixture of different clay materials.

One of the main characteristics of clay is its elementary particle size below 2 microns.

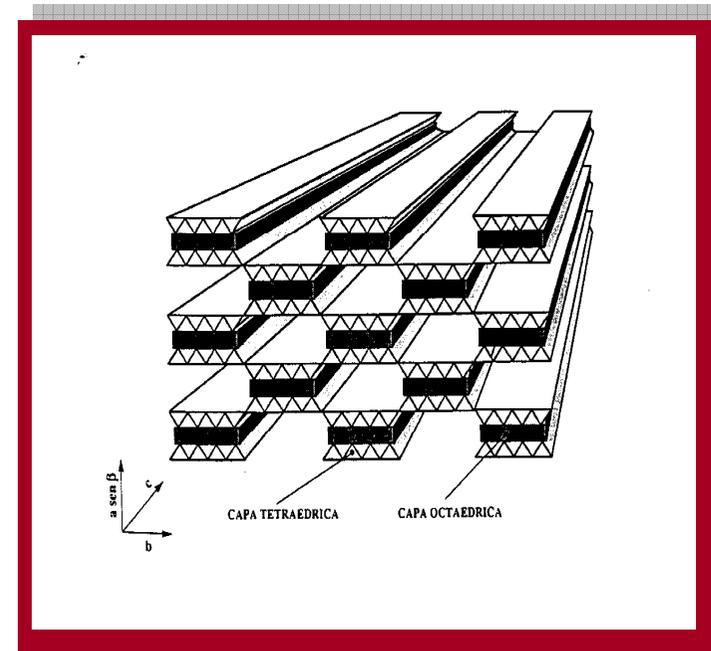
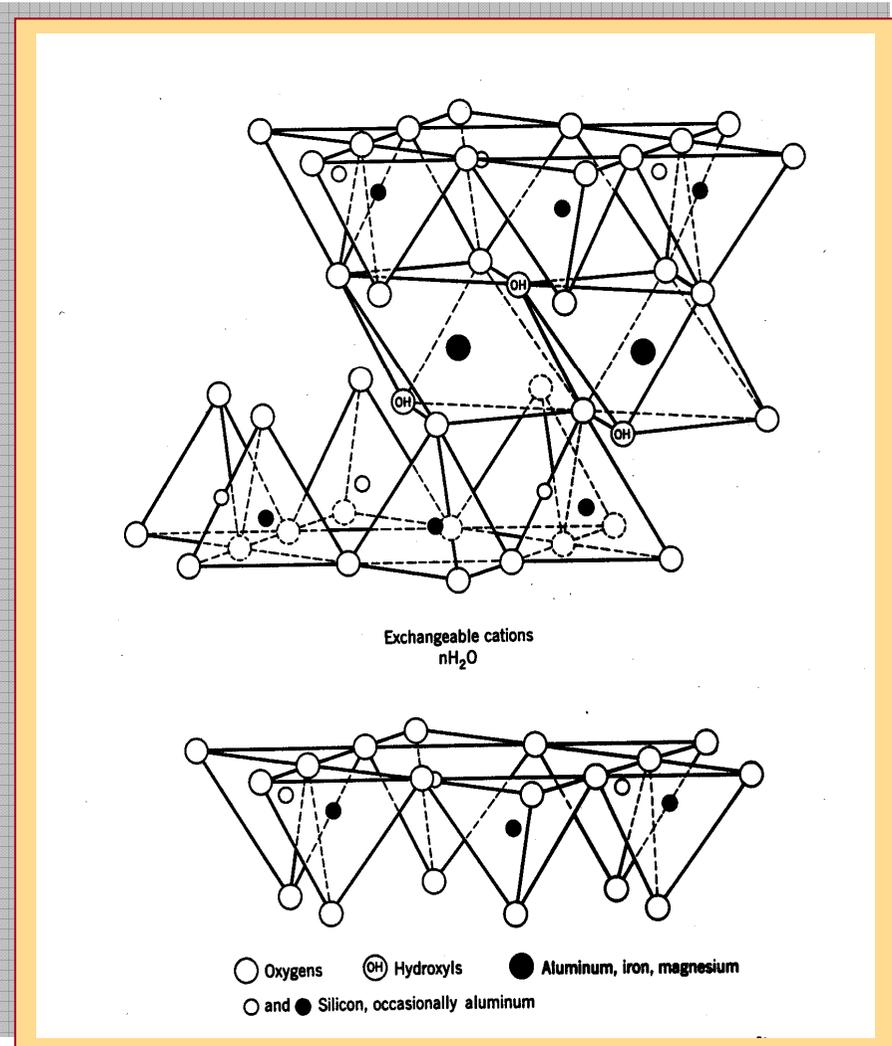
From the chemical point of view clays are basically hydrated aluminium silicates, filosilicate type.

The properties of clays are a consequence of their structure.



# A note about mineralogy

## Crystalline structure of filosilicates



# A note about mineralogy

## FILOSILICATES CLASSIFICATION

	DIOCTAEDRICS Al <sup>3+</sup>		TRIOCTAEDRICS Mg <sup>2+</sup>	
<b>BILAYERS</b> T:O	<b>CANDITES</b>	Caolinite	<b>SERPENTINE</b>	Antigorite
		Nackrite		Crisotil
		Dichite		Lizardite
		Halloisite		Bertierine
<b>TRILAYERS</b> T:O:T	<b>PIROFILITE</b>		<b>TALC</b>	
	<b>ESMECTITES</b>	Montmorillonite	<b>ESMECTITES</b>	Saponite
		Beidellite		Hectorite
		Nontronite		
	<b>VERMICULITES</b>		<b>VERMICULITES</b>	
	<b>ILLITES</b>			
	<b>MICAS</b>	Moscovite	<b>MICAS</b>	Biotite
		Paragonite		Flogopite
				Lepidolite

## A note about mineralogy



*Commercial clays for cosmetic and therapeutic use are extracted from a non contaminated ground and then exposed to open air to get it dried.*

*It is later purified, refined and milled to particle sizes below 40 microns...*

# Physical - chemical characteristics

## ILLITES

- Trilayered dioctaedric filosilicates of different colours depending of its origin and metal composition.
- Layered morphology
- Plastic materials in which water surrounding layered particles produces a lubricant effect helping the particles to slide, one against the other when a mechanical effort is applied.
- Very small particle size
- High specific surface: 50m<sup>2</sup>/g (kaolin:15m<sup>2</sup>/g)
- Certain thermal insulating capacity



# Minerals and skin

Clays contain all minerals that body needs; part of them can be absorbed by the skin:

## Silicon

It is important for restructuring tissues, flaccidity prevention and muscular tone improvement. It is basic for collagen synthesis. The lack of this element produces stretch marks losing tissues elasticity, wrinkles and ageing.

## Sodium

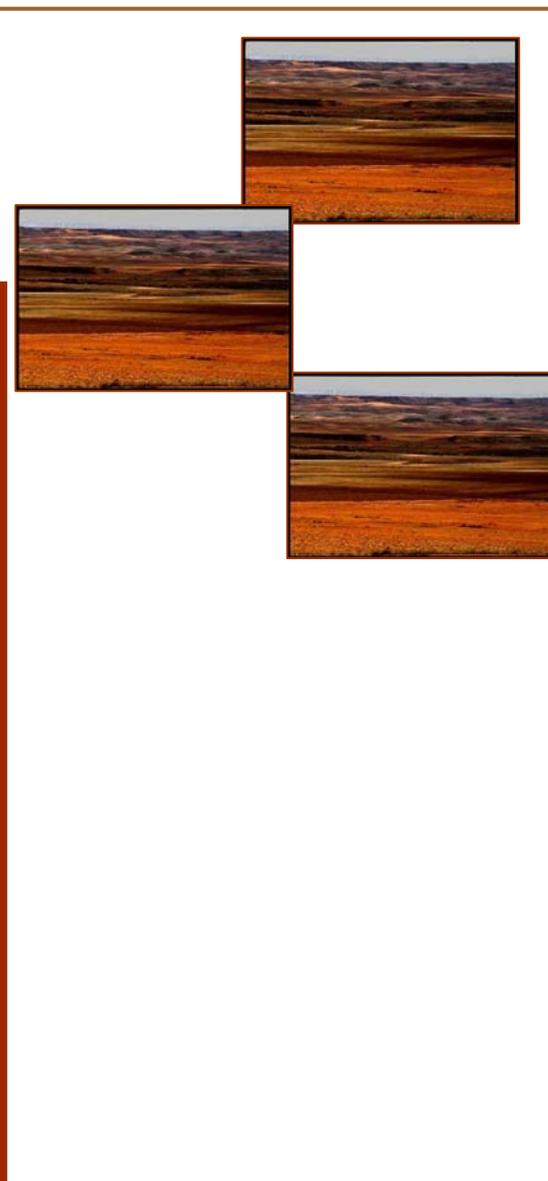
It is very important for the correct cell growth and osmotic pressure regulation.

## Magnesium

It is necessary for the right performance of enzymes that control skin metabolism. It also acts in anti-inflammatory processes.

## Calcium

It is essential for the skeleton, nails and skin metabolism.



# Minerals and skin

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Potassium: gives elasticity and flexibility to tissues. In the correct concentration on the cell, it helps to increase level of defenses.

Iron: Influences melanin synthesis and works in the oxygen transport in the blood.

Zinc: It is used for skin tissue regeneration. It helps in the synthesis of collagen and elastin improving skin strength and elasticity. It is fundamental for the correct cell growth. Its lack can provoke alopecia, dermatitis and healing problems.

# Minerals and skin

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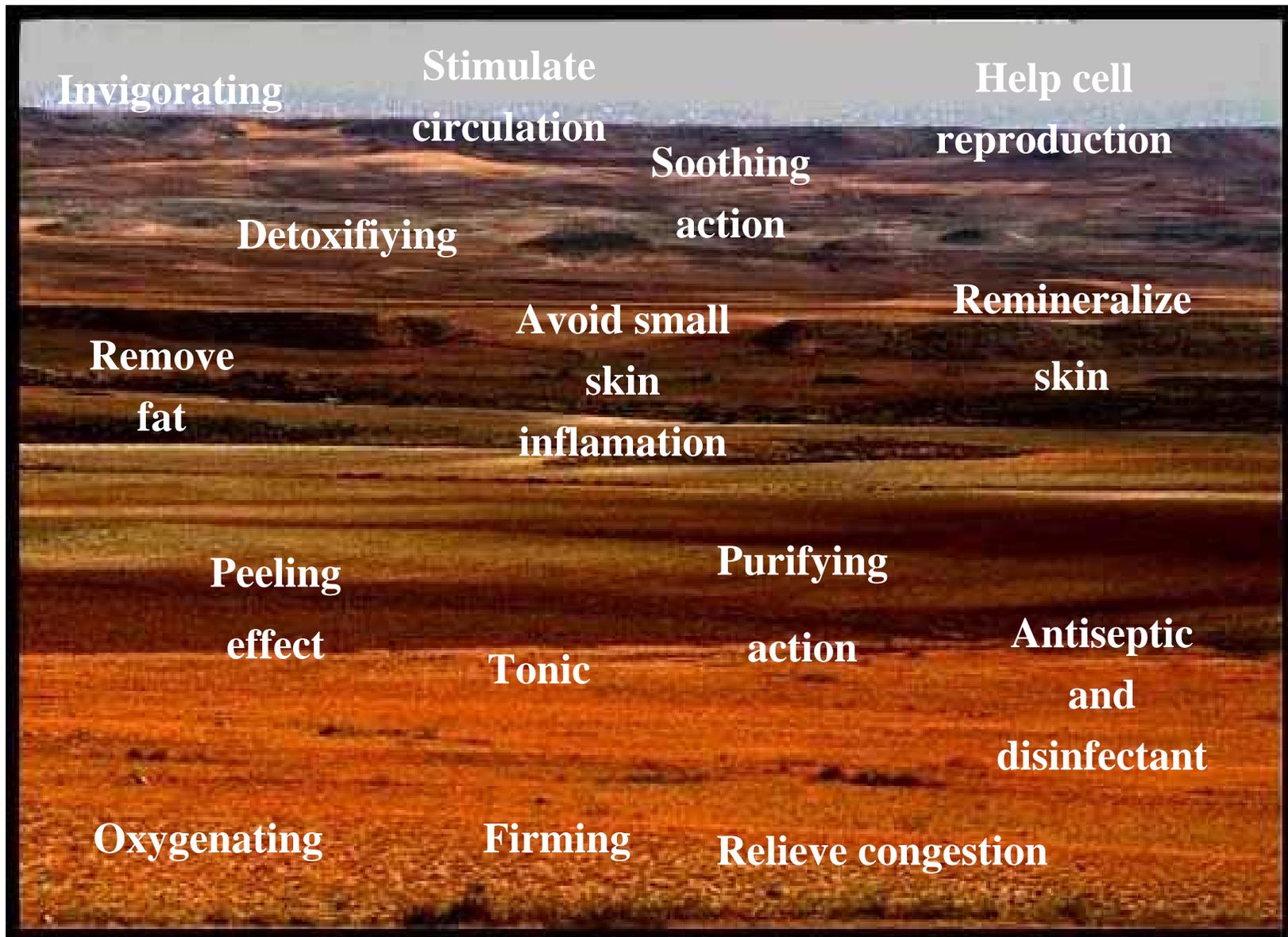
The power of clays as a vehicle goes beyond the osmotic phenomenon.

They release to the skin all actives, minerals and oligoelements that skin needs for the good performance of the metabolism and to balance its natural equilibrium.

There is evidence that mud therapy has the ability to influence biological fluids mechanisms due to an action not only related to a thermal activation



# Properties of clays



# Properties



## Peeling effect

Clays remove and eliminate dead cells, toxins and impurities, normalizing skin texture.

This effect helps cell proliferation thanks to a better oxygenation  
Due to its peeling action on the stratum corneum, they ease the absorption of cosmetic products applied subsequently.



# Properties

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## Purifying effect

Clays help to remove toxins and purify the skin. Their high absorption power helps to eliminate all the excess fat on the skin surface.

In anti-acne applications with clays we can find the antimicrobial effect and its astringent power. They clean skin in depth achieving a natural shine, health and preventing skin moisture loss and scaly skin.



# Properties



## Nourishing effect

In the chemical composition of clays we find mineral salts and oligoelements that the skin needs.

Diffusion of some of these elements into the skin produce an activation of metabolic functions.

Revitalizing the biological processes, improves the general aspects of the skin, strengthening tissues and attenuating wrinkle depth

# Properties



## “Psychosomatic” effect

The way that clays are applied in beauty saloons or SPA means that several factors collude to optimize the treatment efficacy: personalized assistance, silence or relaxing music, rest, warm atmosphere, reinforce of the ego...

Customer/patient achieves a relaxing state that has, as a consequence, an analgesic effect decreasing fatigue caused by stress.

It is translated to a well-being sensation that is also manifested in the healthy looking of the skin

# Product range

COLOR CLAY  
R O S A

COLOR CLAY  
Q U E R C U S

COLOR CLAY  
C Y D O N I A

COLOR CLAY  
C E D R U S



COLOR CLAY  
T I L I A

COLOR CLAY  
C O R Y L U S

COLOR CLAY  
O L E A



## Natural colour clays

**COLOR CLAY®** range of products is the result of an exhaustive selection of clays of special colours that nature offers us along the Mediterranean shore.

The richness of these clays in minerals that contain essential elements for the skin, makes them the perfect allies for beauty treatments.

## Common characteristics

### ➤ High absorbing power

Particle size is  $< 44$  microns. It gives a high specific surface, providing a high absorption capacity.



### ➤ Occlusive effect

Mix with water and applied on the skin increases body temperature, opening the pores and allowing a good penetration of elements

## Product range

Anti – stress – draining – balancing:

Thanks to its **sodium**, **potassium** and **magnesium** content, balances electrolytes in the cell and protects against congestion and muscular tension.

**COLOR CLAY® TILIA**



## Product range

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### Firming action:

Thanks to the **silicon**, improves tone and texture of the skin, giving firmness and preventing

flaccidity.

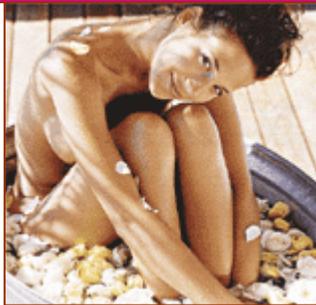
**COLOR CLAY® CORYLUS**



## COLOR CLAY<sup>®</sup> ROSA

Soothing – Relieving action:

Thanks to **sodium** and **potassium** content reduces irritation. It is specially recommended for anti - stress treatments



## COLOR CLAY® CYDONIA

Purifying

restructuring action:

Thanks to its

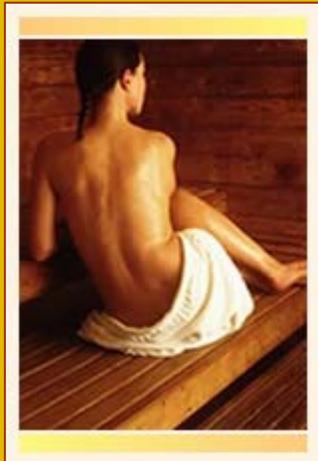
**aluminium** and

**calcium** content,

eases the removal of

impurities and skin

restructuring.



## Product range

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Anticelullite action:

Thanks to the **magnesium** and **iron** content, accelerates cells metabolism and helps de - segregation of fatty nodules.

**COLOR CLAY®**  
**QUERCUS**

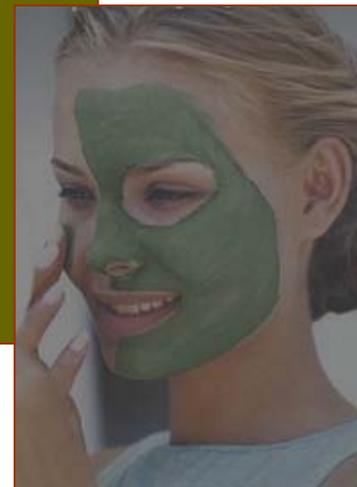
## Product range

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Toning - invigorating:

Thanks to the **calcium** and **iron** content tones and improves texture and appearance of the skin.

**COLOR CLAY®**  
**OLEA**



Product range

# COLOR CLAY® CEDRUS

Oxygenating - Detoxifying action:

Thanks to the **iron** content, helps oxygenation and metabolic functions of the skin.



Product range

**New**



Balance – sebum regulation:

Thanks to the combination of mineral and richness in **sulfur**, acts controlling scaling and impure skin disorders

**COLOR CLAY®**

**VULCANUS**

COLOR CLAY  
N A T U R A L

Product range

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**New**

# COLOR CLAY®

## COCOA

Re-structuring and anti-aging:

Thanks to the richness in **silicon** and **iron**, stimulates oxygenation and firming of Tissues, preventing the aging signals



# Cosmetic forms

## Mud therapy

Clay in powder form is mixed with water “in situ” to get a mud or sludge consistency to be applied on the skin

Clay concentration will vary depending on the type of product and consistency wanted: 30-65%

Mud is usually applied in warm conditions, sometimes it is further complemented by an external heating source

The treatment usually lasts 20-30 minutes and then it is removed by the therapist or with a shower

- ☛ Poultices
- ☛ Muds
- ☛ Wrappings
- ☛ Masks
- ☛ Paraffin muds



# Cosmetic forms

Clays can be combined with other ingredients and achieve synergic therapeutical effects

Powders:

- ✓ Dried extracts of medicinal plants
- ✓ Fruits and vegetables in powder
- ✓ Seaweeds
- ✓ Marin silts
- ✓ Honey powder, pollen
- ✓ Marin salt
- ✓ Chocolate, coffee, wine in powder
- ✓ Atomized sea water...

Liquids:

- ✓ Essential oils
- ✓ Infusions
- ✓ Medicinal waters
- ✓ Plant or seaweed extracts
- ✓ Solutions of active ingredients
- ✓ Aloe vera juice



# Cosmetic applications

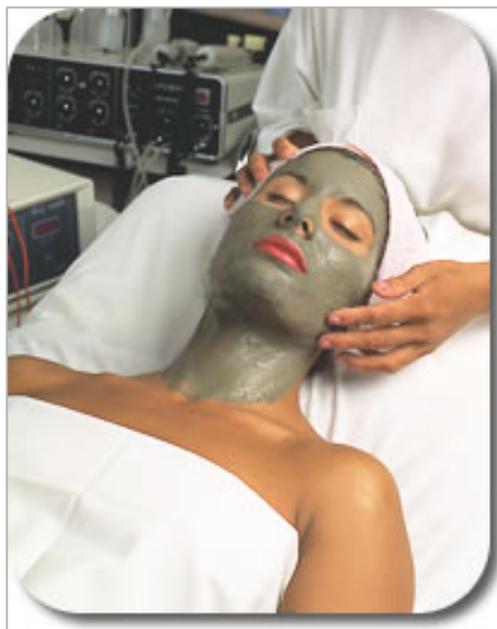
## Formulated masks

For applications:

- Face
- Body
- Hair

in form of:

- Emulsions
- Suspensions
- Alginates bases  
(peel off)



## “Gel-mask”

- Oily gels
- Aqueous gels

## Cleansing products:

- Special shampoos
- Soaps and  
peeling gels

# Orientative formulations

## INCI

<b>Isopropyl Palmitate</b>	<b>27.4%</b>
<b>Illite (COLOR CLAY® CEDRUS)</b>	<b>20%</b>
<b>Paraffinum Liquidum</b>	<b>14.5%</b>
<b>Isopropyl Myristate, Stearlkonium Hectorite, Propylene Carbonate</b>	<b>9%</b>
<b>Paraffinum</b>	<b>9%</b>
<b>Ozokerite</b>	<b>9%</b>
<b>Petrolatum</b>	<b>3.5%</b>
<b>Cetearyl alcohol</b>	<b>3.5%</b>
<b>Cyclomethicone</b>	<b>3.5%</b>
<b>Parfum</b>	<b>0.5%</b>
<b>BHT</b>	<b>0.1%</b>



## Oxygenating gel

# Orientative formulations



## Cool effect anticellulite mask



Mix:

**COOLING SOLUTION 40%**  
**COLOR CLAY® QUERCUS 60%**

### COOLING SOL.

INCI

Alcohol Denat	45%
Aqua (Water)	43.99%
Polysorbate20	5%
Glycerin	5%
Menthol	0.5%
Camphor	0.5%
CI 42090	0.01%

# Orientative formulations



## Revitalizing cream

### INCI

Aqua (water)	71.15%	Prunus dulcis	1%
Illite (COLOR CLAY® OLEA)	15%	Parfum (Fragrance)	0.35%
Octyldodecanol	5%	Methyldibromo Glutaronitrile, Phenoxyethanol	0.2%
Glycerin	3%	Disodium EDTA	0.1%
Hectorite	2.3%	BHT	0.1%
Xanthan gum	2%		



# Orientative formulations



## INCI

<b>Aqua</b>	<b>57.3%</b>
<b>Kaolin (COLOR CLAY® ROSA)</b>	<b>20%</b>
<b>Glyceryl Polyacrylate, Dimethiconol, Cyclomethicone</b>	<b>17%</b>
<b>Propylene glycol</b>	<b>3%</b>
<b>Xanthan gum</b>	<b>1%</b>
<b>PEG-40 Hydrogenated Castor oil</b>	<b>0.8%</b>
<b>Phenoxyethanol, Methylparaben, Ethylparaben, Butylparaben, Propylparaben, Isobutylparaben</b>	<b>0.6%</b>
<b>Parfum</b>	<b>0.3%</b>

## **Antistress calming gel-mask**

# Conclusion

## Advantages of COLOR CLAY®

- ⚡ **Colour range**
- ⚡ **100% natural origin**
- ⚡ **High purity**
- ⚡ **Excellent dermal compatibility**
- ⚡ **Controlled microbiology**
- ⚡ **Natural colorant**
- ⚡ **High covering strength**
- ⚡ **Colloidal particle size**
- ⚡ **Versatile in formulation**
- ⚡ **Non tested on animals**



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# COLOR CLAY

N A T U R A L

**...a gift from nature to the  
cosmetic industry.**