

Manicouagan Clay



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Synthesis of matter

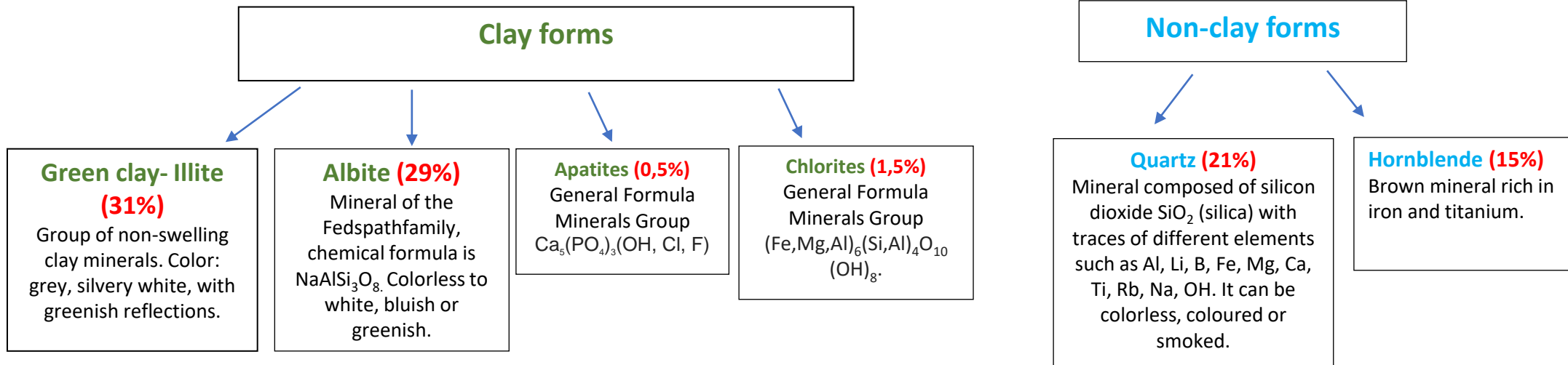
Manicouagan Clay

- Extracted under the bog in the Manicouagan Peninsula (Quebec-Canada), along the St. Lawrence River.
- Chemical and mineralogical composition of Manicouagan Clay is explained by erosion and sediment deposition, transported by the Manicouagan River and the Outarde River to the peninsula.



Mineral structure of Manicouagan Clay

- Clay forms and non-clay forms



Chemical composition

An oxide (**metallic** ou **non-metallic**) is un chemical compound resulting from the association of an oxygen atom and an atom of another element (**metallic** ou **non-metallic**).

Silicon dioxide– Silica – SiO_2 - (59,80%)

The most abundant oxide in the earth's crust.

Cosmetic applications: abrasive agent, absorbent agent, opacifier...

Aluminum oxide -Alumina – Al_2O_3 (16,20%)

The 2nd most abundant oxide in the earth's crust

Cosmetic applications: abrasive agent, absorbent agent, opacifier..

Iron oxide (III) – Fe_2O_3 (6,25%)

Also called ferric oxide, hematite or Indian red.

It is a 100% natural red pigment that has excellent UV resistance.

Calcium oxide- CaO (3,92%)

Cosmetic application : pH stabilizer.

Sodium oxide- Na_2O (3,80%)

Cosmetic application : pH stabilizer.

Magnesium oxide – Magnesia - MgO (3,34%)

Cosmetic applications: absorbent agent, pH stabilizer, opacifier.

Potassium oxide– K_2O (2,81%)

Cosmetic application : pH stabilizer.

Titanium dioxide – TiO_2 (0,66%)

Cosmetic applications: opacifier, UV absorber, white colorant.

Phosphorus pentoxide– P_2O_5 (0,21%)

Cosmetic application : pH stabilizer.

Manganese dioxide– MnO (0,09%)

Cosmetic application: UV absorber

Chromium oxide– Cr_2O_3 (0,02%)

Cosmetic application: green colorant

The beneficial chemicals elements

Micro-elements

- Mineral substances (extracted from the earth).
- Our body needs it => successful functioning.
- Necessary doses: slight => this is what distinguishes them from mineral salts, present in greater quantities in the human body.

Manganese (Mn)

601 ppm⁽²⁾

Copper (Cu)

24 ppm⁽²⁾

Brome (Br)

0.72 ppm⁽¹⁾

- Well-known antimicrobial agents.

Chromium (Cr)

130 ppm⁽²⁾

- Beneficial contribution of chromium to diets: reduces hunger and sugar cravings.

Strontium (Sr)

468 ppm⁽¹⁾

- Naturally present in rocks, soil, water, air.
- Used in homeopathic medicines.

Iron (Fe)

39100 ppm⁽¹⁾

- Important in preventing infections and also in strengthening the immune system.

Zinc (Zn)

66,2 ppm⁽¹⁾

- micro-element
- rebalancing, soothing and purifying properties.

Mineral salts

- Come from the rocks
- Necessary for the functioning of our body

Sodium (Na)

33141 ppm⁽²⁾

- 1st mineral salt of our body.
- plays an important role in the body's hydration status.

Potassium (K)

21751⁽²⁾ ppm

- 4th mineral of our organism.
- acts on the proper functioning of the kidneys.
- essential for **muscle contraction** and **heart muscle** contraction.

Magnesium (Mg)

15970 ppm⁽²⁾

- 3rd mineral of our organism.
- Alleviates fatigue
- Recommended for the treatment of acne and psoriasis.
- Fighting itch and skin inflammation

Calcium (Ca)

30600 ppm⁽¹⁾

- 2nd mineral salt of our body.
- ensures the strength of the skeleton.
- helps to restore the skin deeply, protect the upper layers of the skin and promote lipid synthesis for better hydration.
- strengthens the skin's natural barrier and protects it.

(1) Neutron Activation Analysis (NAA)

(2) Inductively Coupled Plasma (ICP)

Organic matter

