



# GREEN TECHNOLOGY

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Mineral based products with raw materials “borrowed” from the earth

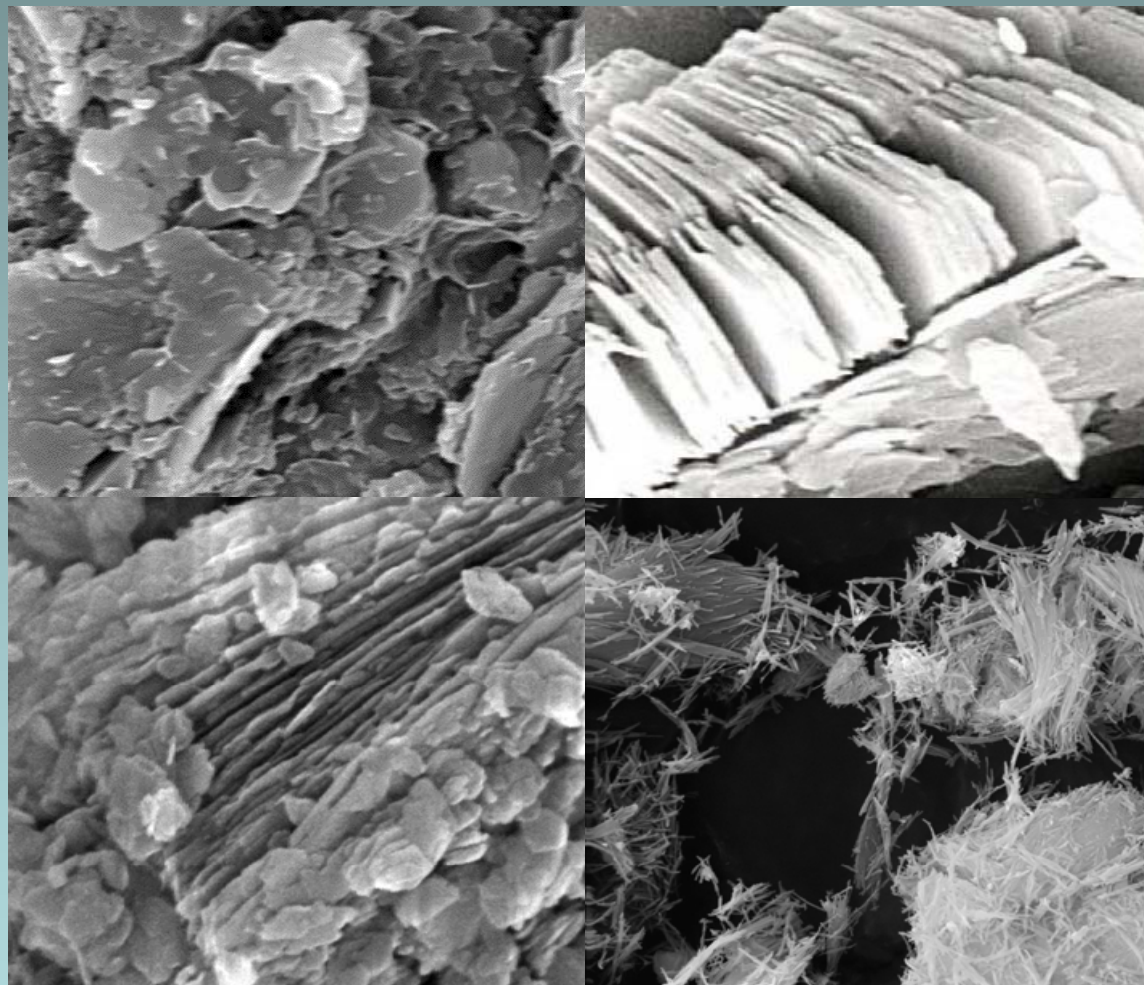


# Ecological Benefits

- The minerals are already been formed
- Mining can be done with minimum efforts
- Hardly energy is required to obtain the required quality of raw materials
- The landscape is mostly reconstructed after the mining (no damage to nature)
- Ecological structures, based on non-toxic elements
- No impact on the environment, low BOD, COD
- Raw materials produced by the earth



# Clay Structures



# Floating of Particles



Like in rivers the clay particles float



# Absorption on Clay

Like in nature clays absorb:

- **HEAVY METAL IONS** like  $\text{Fe}^{3+}$  to prevent peroxide catalysis
- **ORGANIC IMPURITIES**, like pectin, hemi-cellulose, sericine, lanolin, natural waxes
- Even **OILS**, from paraffins to heavy duty oil up to siliconic oils



# Where to use clays?

- As a pre-treatment, like pre-bleach or pre-wash
- **During the dye-cycle as the product remains active during the whole operation**
- Scour-dye method is possible if the fabric is not excessively soiled

# Where to use clays?

- Other positive effects may occur, like:
  - lubrication of the goods,
  - machine cleaning,
  - adsorption of dye impurities,
  - adsorption of residual impurities after scouring and anti-dusting agents
  - oligomer dispersion and adsorption
- As a scour-dye agent especially to eliminate pre-scouring

# Benefits of clays in textile processing

- Ecological “non chemical”, sustainable [GREEN TECHNOLOGY](#)
- Effective, technically equivalent products compared to “organic chemistry”
- Clays are effective over a wide range of temperatures, from cold up to over 130°C, as well as pH values (pH3 to pH14)
- New processing methods are possible, saving water and energy





# Existing Products

PRE-TREATMENT

**VIP**

BLEACHING

**ULS**

**CERRIOSTAR**

**MPD**

CHELATING



**AO-S**

ANTI-OLIGOMER

**MH**

ANTISTATIC



**THIS IS OUR WAY!**

**WE ARE LOOKING FOR FELLOW TRAVELLERS!**

