

PLADOS TELMA

THE SINK THAT BREATHES

ARIA
PUR

nano**STONE**



Our latest composite material, NanoSTONE, has been developed to realise the best performing sink ever. NanoStone has the best mechanical and aesthetic features that composite sinks can have.

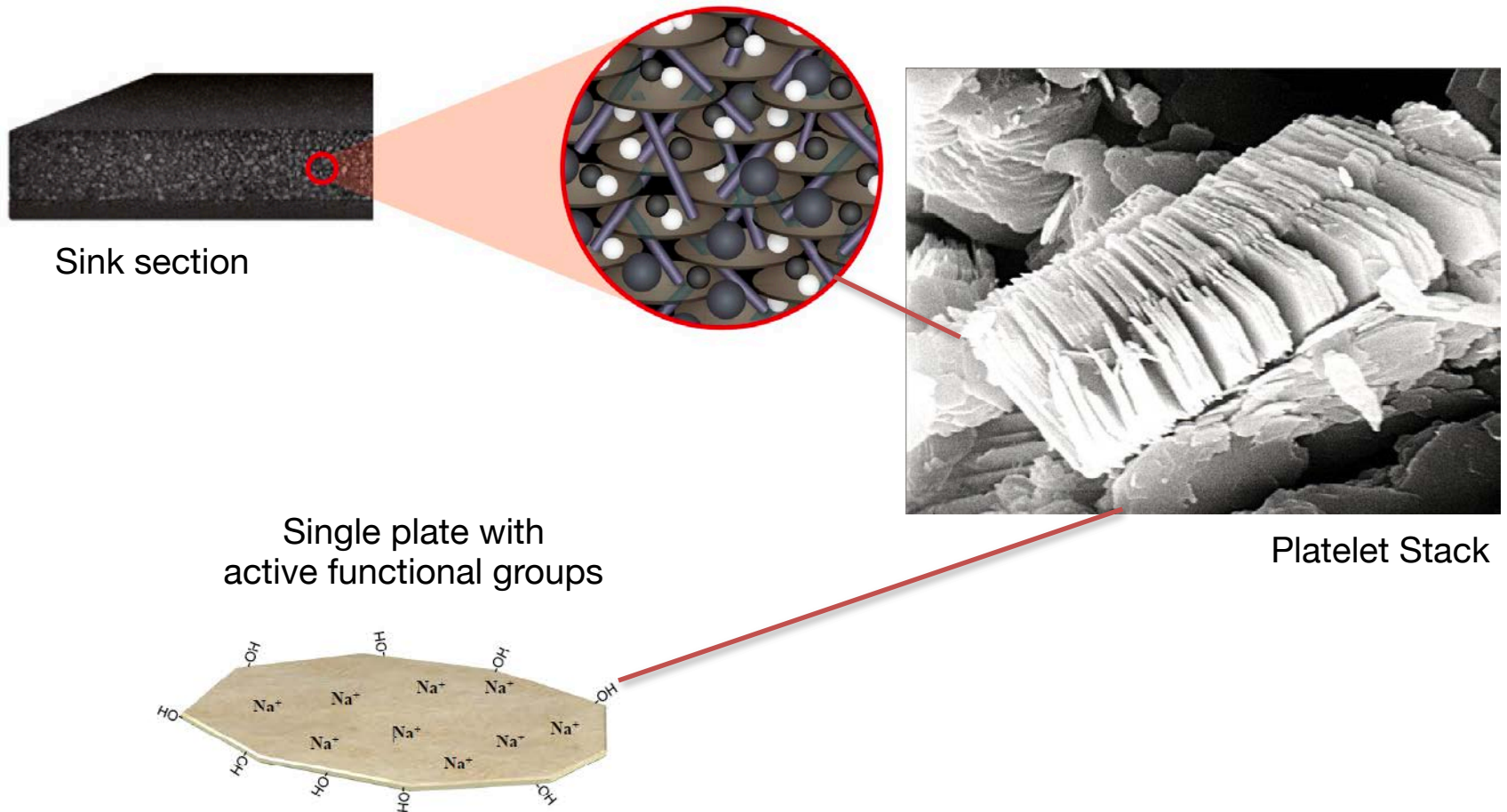
Created for modern and contemporary environments, this new material is made of the purest acrylic resin and a mix of mineral fillers, designed to bind together by developing a **3D network** of “hydrogen bonds” through a chemical process that is possible thanks to the specific geometries of the involved minerals:

- **Plate type mineral;**
- **Needle type mineral;**
- **Mixed mineral and titanium dioxide, which is able to insert itself into the 3D structure;**

The molecular lattice thus created reinforces the internal structure of the sink, making it more resistant to impacts and thermal shocks. Like our other materials, nanoSTONE is added with titanium dioxide nanoparticles which, through the photocatalysis process, reduces the pollutants present in the kitchen environment, makes the sink antibacterial and easier to clean.



The sink is perfectly uniform, thanks to the creation of a 3D molecular lattice. This network reinforces the internal structure of the sink, making it more resistant to impacts and thermal shocks.



Innovative Material comes out from 4 mixing and dispersion steps:



Platelet Stack

Swelling

Solvation of the organic compound increasing spacing between organic mineral platelets.

Dispersion

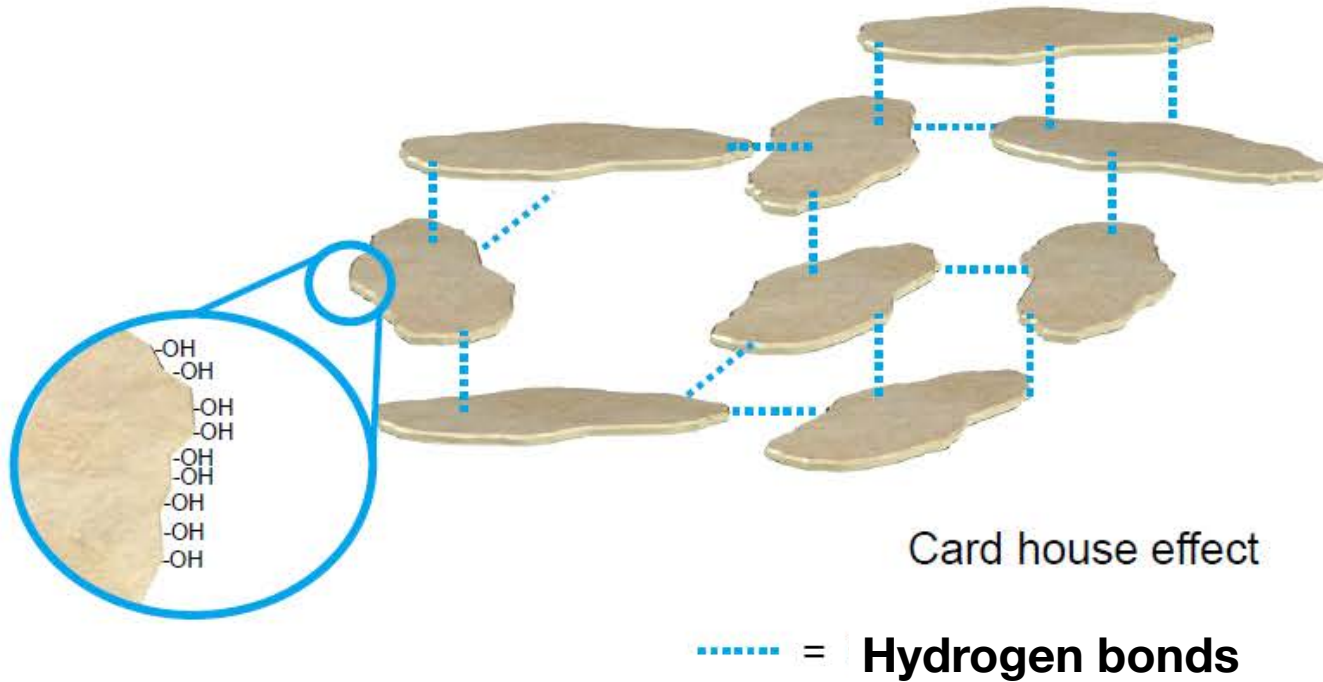
Separation of organic mineral platelets.

Activation

The addition of a polar activator to aid in hydrogen bonding

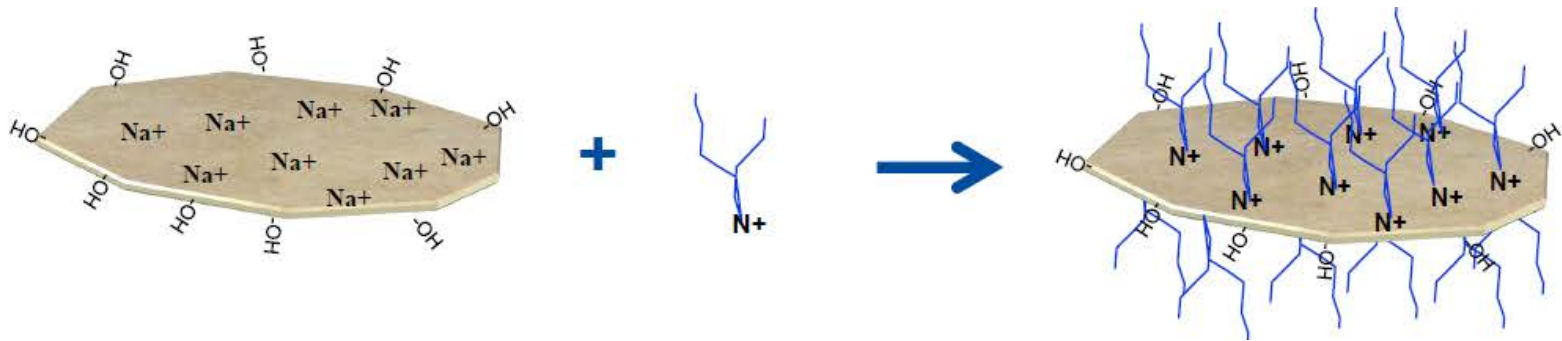
Gelation

The creation of a thixotropic gel network:
“building the house of cards”



Hydrophilic fumed silica particles build up a 3D network via hydrogen bonds. This leads to a rheological effect that stabilizes the material by uniforming the suspension and preventing sedimentation.

Organic Modification for Solvent Based Applications

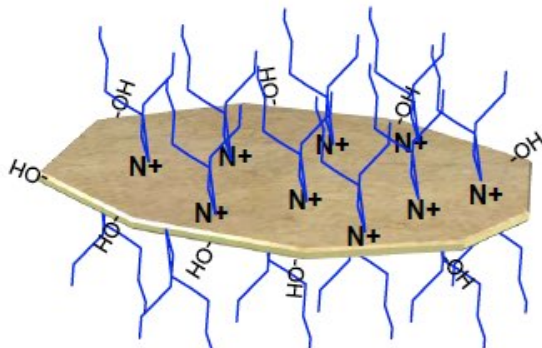


Only the negative loaded surface is coated - not the positive loaded edges of the platelets. The organically modification enables the application of clays in solvent based or solvent-free systems.

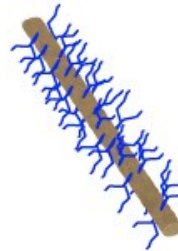
Organically Modified mineral

Two types of minerals are mixed to create a unique performing structure based additive, with much faster processing properties. This thanks also to the work of the plates.

Plate Type Mineral



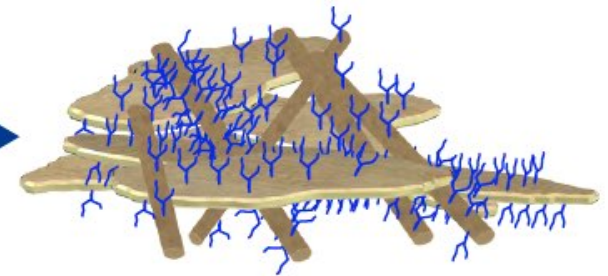
Needle Type Mineral



+



Mixed Mineral Thixotrope



Compact and silky finishing



The molecular lattice thus created reinforces the internal structure of the sink, making it more resistant to impacts and thermal shocks. The new composite material has a more robust structure and a feeling of pleasantness to the touch.