# Silicate emulsion paints



# New generation of mineral

# <u>paints</u>

#### **1. Description**

Inorganic mineral coating, highly resistant to light and atmospheric agents, as well as to degradation caused by the action of algae and fungi. Has high permeability to water vapour and petrifies, solidifies by reaction with mineral substrates.

Its main components are inorganic products: potassium silicate, inorganic pigments (iron metal oxides, cobalt, etc.), inorganic fillers (calcium carbonate, talc, kaolin). This type of paints provides a mineral matte finish.

#### 2. Properties and applications

Unlike conventional paints, inorganic silicate coatings do not form continuous films on the surfaces, fact that, in conjunction with its **high permeability**, avoids the usual degradation or flaking of conventional paints.

As its coefficient of thermal expansion is similar to the substrate one, film tensions are avoided when the paint is exposed to extreme thermal gradients. These tensions are a frequent cause of peeling and detachment of paint films.

Since it has no adhesive characteristics and is **free of electrostatic charges**, this prevents the surface from premature dirt. Moreover, thanks to the **high resistance to corrosive** (industrial) and **atmospheric environments**, the painted surface retains a long-lasting unalterable appearance, far superior to conventional coatings. Due to the inorganic origin of its components, these paints are **resistant to light and UV radiation** and they can be considered as **non-combustible**.

These **eco-friendly paints** (with no solvents) have a **biocide effect** against algae, moulds and fungi growth.

This type of paints can be used in new construction, renovation and restoration of historic and artistic buildings both indoors and outdoors.

**Exterior:** All types of vertical building surfaces, mineral insulating panels, bridges, etc.

**Interior:** Suitable for tunnels, cellars and basements where high vapour permeability is required or fire-resistant and low allergenic coating is needed (eg hospitals, schools).

## 3. Application

In general, we can state this silicate emulsion paint is perfect for all types of mineral surface.

**Suitable surfaces:** new or old cement plasters; new or old plaster in cement, sand and lime; new or old sand and lime mortars; concrete surface; brick walls; fibre cement panels; natural or artificial stone walls (mainly porous stones) plaster surfaces (with prior treatment of the surface with a fixer); metal surfaces (especially aluminium and galvanized steel)

**<u>Unsuitable surfaces</u>**: Plastic; wood ; oil based paints and new plastic paints. <u>Surface preparation</u>: All surfaces must be clean, dry and free of dust, grease, oil and any other type of pollutant. Recent concrete surfaces should be well dry for at least 14 days before applying the paint.

#### 4. Care and maintenance

The lifetime of these silicate emulsion paints is superior to any other type of conventional paint. In terms of duration, we mean decades. Surfaces painted with this type of products remain intact as the first day for decades. No discoloration or yellowing occurs over the years.

#### 5. Possible problems and solutions

Problems that may arise are the results of incorrect application. This is why it is highly convenient to follow the recommendations of the paint manufacturer.

## 6. Health and safety

This paint can be considered eco-friendly so the application poses no risk to health. It is recommended to use glasses during the application.

## 7. Miscellaneous

Avoid contact of the paint with glass or aluminium surfaces or varnished wood; paint remains on these surfaces should be removed immediately with water.