

**INDUSTRY
SOLUTIONS.**

**Mineral
Building
Solutions.**

CHT

**SMART CHEMISTRY
WITH CHARACTER.**

SUSTAINABLE BUILDING PROTECTION

**HYDROPHOBING AGENTS FOR MINERAL-BASED
CONSTRUCTION MATERIALS**

ECONOMICALLY STABLE SOLUTIONS

Mineral-based construction materials give a face to our world: Facades of concrete, sandstone, limestone and other natural stones stand for the persisting construction boom all over the world.

IMPREGNATE NOT RESTORE

The more possibilities these construction materials offer for architects and planners, the more susceptible they are to weather influences.

Strong advantages for construction materials:

- ▶ Reduction of water uptake
- ▶ Build up barrier to chlorides
- ▶ Maintain water vapour permeability and physical properties
- ▶ High resistance to UV radiation and alkalinity

Following reasons are in most cases the source of structural damage which leads to high restoration costs:

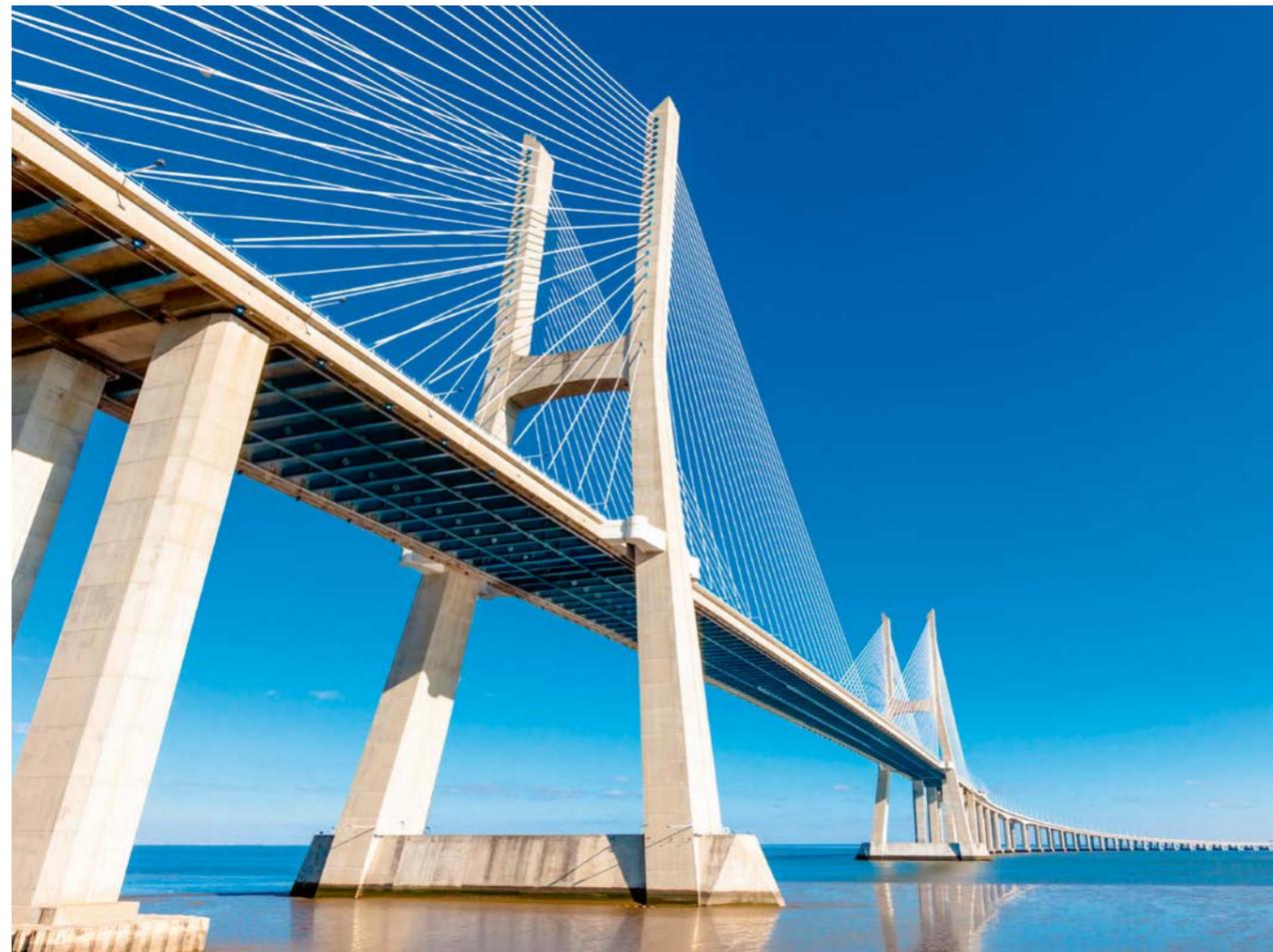
- ▶ Chemical corrosion
- ▶ Cracks due to swelling and shrinking
- ▶ Frost damages (chipping off)
- ▶ Efflorescence and salt damages
- ▶ Stains and stain elimination
- ▶ Algae growth at the surface

Hydrophobing products of CHT help to prevent or reduce damages caused by moisture.



Pictured left: Concrete without hydrophobing agent

Pictured right: Protection from salt efflorescence with VARIPHOB MS 2000



EFFECTIVE PROTECTION

CHT has developed a comprehensive portfolio of innovative and technologically excellent hydrophobing agents. Our products cover a large application spectrum from construction of new buildings to restoration of old buildings up to monument protection and concrete protection, e.g. of infrastructure buildings.

Our products are based on siloxanes which stand out by their extreme durability. They optimally penetrate in the mineral-based construction materials and form a particularly stable network.

DURABLE AND OPTICALLY ATTRACTIVE

CHT solutions providing an hydrophobic effect contribute very much to improve the durability and sustainability of facades and masonry. The materials are protected for a long time and thus the well-maintained appearance of the building can be ensured.

Achieve a longer life cycle of buildings with sustainability:

To fulfil your specific customer requirements, rely on our know-how in hydrophobing agents and their application.



IMPREGNATION

Product	Description	Properties			Recommended substrates		Characteristics
		Reduction of water uptake	Anti-Efflorescence	Beading	pH-neutral	Alkaline	
VARIPHOB® MS 2000	Silane/Siloxane emulsion	++	+++	++	++	++	All-round additive for pH-neutral and alkaline substrates
VARIPHOB® MS 3000	Siloxane solution	+	++	+++	+++	++	Excellent beading effect, mainly used in vertical applications
VARIPHOB® SRN 721	Silicone resin	++	+	+++	++	++	Solvent dilutable additive, high surface hydrophobicity for pH-neutral and alkaline substrates

ADMIXTURE

Product	Description	Properties			Characteristics
		Reduction of water uptake	Anti-Efflorescence	Beading	
VARIPHOB® TOP 1	Silane based emulsion	+++	++	+	Product is a water dilutable emulsion which can be used as a hydrophobic admix for non-load bearing manufactured cement based mineral materials
VARIPHOB® SEAL 60	Silane/Siloxane	+++	++	++	Effective concentrated product which can be used as a hydrophobic admix for non-load bearing manufactured cement based mineral materials and fibre-reinforced cement boards
VARIPHOB® PDR 2	Silane based powder	++	++	+	Product can be used as a hydrophobic admix for non-load bearing manufactured cement based mineral materials

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