



About RALG, a Silane Derivative

Silanes containing fluoroalkyl groups are oleophobic (oil repellent). Alkoxysilyl groups attached to these silanes allow them to actually penetrate, cure in and even bond to many inorganic substrates. These unique properties allow for versatile and durable formulating solutions that protect against harmful water- and oil-borne elements.

sil-ane (si' layn) *n.*

Any of a group of silicon hydrides having the general formula SiH_4 , that are analogous to the paraffin hydrocarbons.

INORGANIC

Describes a substance which is not organic, did not come from the materials or processes of living organisms, and/or is not a hydrocarbon or a hydrocarbon derivative compound.

ORGANIC

Of, relating to, or derived from living organisms: organic matter.

- * Excellent water repellency
- * Long-term durability
- * UV stability
- * Depth of penetration
- * Water vapor permeability
- * High dilution capability and stability
- * Clear, uniform, neutral appearance

Benefits of protection include:

- * Reduced efflorescence (*white powdery look*)
- * Reduced freeze-thaw damage
- * Chloride ion resistance to deter corrosion of reinforcing steel in concrete structures
- * Preservation of aesthetics shared by hydrophobing agents (repels water).

Silanes are widely used to improve the adhesion of a broad range of sealants and adhesives to inorganic substrates, such as metals, glass and stone. Sealants are based on filled, curable elastomers and have the dual purpose of preventing passage of water, air and chemicals through the zone where applied. Their usefulness in the aircraft, automotive and construction industries depends upon their ability to form durable bonds to metal, glass, ceramic and other surfaces - bonds that will withstand exposure to heat, ultraviolet radiation, humidity and water.

Silanes can impart several benefits including:

- * Abrasion resistance
- * Adhesion
- * Better flow
- * Cross linking to improve thermal stability and durability
- * Pigment and filler dispersion
- * UV resistance
- * Water and chemical resistance