# Floons Group TM

# LiquidRock LH

## Liquid Concrete Hardener

#### **Description**

Usage: *LiquidRock LH* is used for dustproofing, hardening, increasing wear/chemical resistance and reducing water absorption of concrete floors.

Composition: Lithium silicate and special additives.

Action: A chemical reaction of the compound, migrated deeply to the concrete pores with the remaining portlandit Ca(OH)2 and/or Ca2+ ions, results in the formation of hard crystals and insoluble compounds. As a lithium-based material, *LiquidRock LH* significantly reduces negative effects of ASR (alkali-silica reaction). Presence of organosilicon additives in the compound additionally provides sustainable hydrophobic properties and significantly improves the operational performance the surface. These hydrophobic properties make the material attractive for use in open areas such as parking lots, patios, driveways, playgrounds, etc. *LiquidRock LH* is the best finishing compound for polished, colored and other decorative concrete because lithium-based compounds don't have a tendency to form a muddy/grainy film on the surface.

Appearance of treated concrete: The surface has a moist appearance. Some light gloss may occur and slowly increase with time.

#### Specification

Specific Gravity: 1.05 - 1.10 (H2O = 1)

Time Requirement: 30-60 minutes

Usage after application - pedestrian traffic (70° F): 5-7 hours Usage after application - transport traffic (70° F). 24 hours

Coverage: Essentially depends on composition,

flatness and porosity of the concrete from 12 ft2/lb. (porous concrete) to 30 ft2/lb.

(properly trowelled concrete)

Packages: drum 200 gal, pail 20 gal, bottle 1 gal (for

the US market only)

Shelf Life: two years in the closed original packaging

#### Manual

Preparation: Fresh concrete must be cured for 5-7 days. Old concrete must be carefully cleaned from oils and other contaminations/debris. All coatings and sealers must be fully removed. Significantly dirty surfaces must be washed with floor washing machines and loose concrete must be slightly grinded. It's vital to remove all dust with an industrial vacuum before application of the material.

Temperature: **LiquidRock LH** can be applied in temperatures ranging from  $35 \,^{\circ}\mathrm{F}$  ( $2 \,^{\circ}\mathrm{C}$ ) to  $100 \,^{\circ}\mathrm{F}$  ( $38 \,^{\circ}\mathrm{C}$ ). It is strongly recommended to slightly wet the concrete surface (do not allow material to puddle) if the temperature is either above  $80 \,^{\circ}\mathrm{F}$  ( $27 \,^{\circ}\mathrm{C}$ ) or during wind or draught.

Application: Apply *LiquidRock LH* to the desired surface by spraying or pouring it directly from the original package and spreading it uniformly with a squeegee. Use stiff brooms or brushes to assure the entire surface is wet with the material for 30-40 minutes. Be especially careful to make sure it does not puddle. In case the material will be thoroughly absorbed, add more as necessary. In case it starts to prematurely harden or form a gel (as a result of the high ambient temperature), dampen the surface with water using a sprayer. It is critical that the whole surface must be wet with the liquid compound for the entire time of treatment. If the ambient temperature is below 50 °F (10 °C) the rate of the chemical reaction is significantly lower, therefore, it's necessary to increase the treatment time for up to 60-80 minutes. When the treatment time is over, carefully remove all unabsorbed material from the surface. The second application must be done immediately when the surface is slightly dry (don't wait for the surface to be fully dried because it will become hydrophobic). The second treatment will improve the surface hardness significantly and is strongly recommended if the concrete isn't trowelled properly and/or is porous. It is necessary to protect the treated surface from water for 24 hours after application, especially if you are working outdoors.

#### Cleaning of equipment and tools

Cleaning of equipment and tools must be done immediately. Uncured material is easily removable with water, and is more difficult to remove once cured.

#### Additional information and safety

Irregular whitening of the surface can be caused if you let the material puddle on the surface during application and/or fail to fully remove the remains after treatment. You can try to eliminate these problems once the material is cured only with mechanical methods such as scrubbing or grinding.

Refer to the Material Safety Data Sheet (MSDS) for complete health and safety information. Direct contact may result in irritation of the skin, eyes and mucus membranes. In case of contact, immediately wash the exposed area with warm water and seek medical attention if necessary. In case of contact with eyes, medical attention is strongly recommended. Use protective gloves.

Information in this document reflects the knowledge and practical experience in relation to the described product available at the moment of publishing. The manufacturer reserves the rights to change the composition and technical specification if the properties of the product will not be degraded. The customer must always perform an experimental testing of the product to determine possibility of its usage in the particular conditions. The manufacturer accepts no responsibility for results caused by improper understanding of this document and by improper transportation, storage and application of this product.

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