



CSX.0121
**QL NANO
 LITHIUM**

Chemical/mechanical hardener,
 anti-dust, nano-technology, non-
 pellicular

 **Dosage**

0.06 l/m²

 **Packaging**

- Plastic can 5 l
- Plastic can 25 l

 **Application**

- Low pressure airless nebulizer
- Scrubbing brush
- Sprays

Family
Consilex

Product Lines

- Building
- Infratech
- Sanageb

Type

Water based silicate solutions

Functional Categories

- Construction of high performance industrial concrete floors
- Wall structure treatments and repair of industrial concrete floors
- Realkalinization and renovation of existing cement conglomerates
- Prefabrication
- Curing compounds for industrial floors, screeds and concrete in general
- Construction of concrete floors with the technique of the 'washed gravel'

Components
Single-component

Appearance
Liquid

General description

Chemical/mechanical, nano-technological, non-pellicular hardener, based on lithium silicates for cortical reinforcement, chemical curing and surface anti-dust treatment of concrete industrial floorings. QL NANO LITHIUM can also be applied immediately after finishing with power trowel of the surface of a new concrete floor. In this case, the product also acts as a curing compound, favouring the curing of wet concrete.

General features

It is the most significant progress in the saturation and the reinforcement of concrete floorings in the last 50 years, it has always been used in the United States. The "nanotechnology" of QL NANO LITHIUM, which is a real improvement with respect to sodium silicate and extremely performant as a reinforcing agent for concrete, has allowed us to achieve levels of performance that were previously unimaginable.

The product also presents the following characteristics:

- It significantly limits (90%) the cracks of the flooring during hardening.
- This is the only chemical hardener that helps to alleviate and prevent the alkali-silica reaction ("alkali-aggregate reaction" or ASR).
- It completely replaces the armour with quartz dusting. It does not crack, it does not detach, it creates a film, it does not bubble.
- The extraordinary contribution to the deep reinforcement, makes the surface of the concrete completely dust-proof and highly resistant to abrasion. The continuous use of the flooring contributes to continuously improving the surface gloss without altering slipperiness in the least.
- It is in an aqueous solution and does not contain solvents. It is odourless, non-flammable, non-toxic, it does not fear the freezing and thawing cycles, it is not carcinogenic and does not contain volatile substances (VOC Free) and can also be used in closed premises.
- Compatible with other materials like: epoxy resins, polyurethane resins, acrylic resins, etc..
- It is UV resistant and remains stable over time.

Fields of application

Anti-dust hardening treatment, for industrial flooring and concrete slabs, both old and new, both grey and coloured.
 Curing of works and articles in fresh concrete.

Available colours

- Transparent

Basic features

 Highlighted product

 Density:
 1.11 kg/dm³

 Dosage:
 70 (+- 10%) g/m²

 Nonflammable

 Shelf-life:
 12 months

 Solvent-free

 UV-resistant



www.azichem.com

Updated: **24/02/2018**
 General sales conditions and legal
 notices on
 www.azichem.com/disclaimer

Tools cleansing

- Water

Applicable on

- Concrete
- Floor screed

Instructions for use

In case of new flooring, it can be applied as soon as the surface of the industrial flooring is walkable, without superficial water residue.

Shake the product before use. Apply the product by low pressure airless, evenly without creating puddles, completely saturating the surface for a consumption of 70 g/m² approximately.

It is advisable, after about 7-10 days, to wash the surface floor polisher provided with a black pad to eliminate any excess product, thus obtaining an elegant semi gloss (opaque) effect of the flooring, by polishing the lithium crystals on the surface.

Substrate preparation

Application surfaces should be clean, free of soiling, crumbling and non-adhering parts, dust, etc., conveniently saturated with water until they reach the condition "saturated with dry surface".

Storage and preservation

Protect from freezing. Store the product in its original packing, in a fresh and dry environment, avoiding frost and direct sunlight. Inadequate storage of the product may result in a loss of rheological performance.



ABRASION TEST

The abrasion test was done according to ASTM standards on a standard of 6 samples of cement mix. One sample was not treated, one sample was treated with QL NANO LITHIUM and one was treated with one of the best sodium silicates present on the market. An abrasion with a disc grinding of 4.5 inches in diameter was performed. The samples were then weighed before and after to determine the weight loss.

	BEFORE	AFTER	LOSS	STRENGTH
Comparison	388.8	385.7	3.1	--
Sodium Silicate	425.3	423	2.3	+29%
QL NANO LITHIUM	411.1	409.4	1.7	+45%

ABSORPTION TEST

NORM	CONCRETE	NON-TREATED	REDUCTION
RILEM 25 PEM	CEN 1766 C 0.70	4.1 (100%)	0.4 (-85%)
EN 1062/3	CEN 1766 B 0.25	0.4 (100%)	0.2 (-50%)

HARDNESS TEST

TEST	CONCRETE	NON-TREATED	TREATED	INCREASE
MOHS SCALE	C 0.70	3	6.5	+115%
MST	B 0.25 + QUARZ	6.5	8.5	+35%
MST	B 0.25	5	8	+60%



www.azichem.com

Updated: **24/02/2018**
General sales conditions and legal notices on
www.azichem.com/disclaimer

Warnings, Precautions and Ecology

Technical and performance data outlined in this document are the result of laboratory testing conducted in a conditioned environment, as such they can result as considerably changed from operating and application conditions. The need follows to carry out preliminary tests in actual use conditions.

The user is required to check the product's most recent Material Safety Data Sheet, reporting physical-chemical and toxicological data, risk phrases and other useful information on how to safely transport, use and dispose of the product and its packaging. It is also reminded that the product and its packaging must not be dispersed in the environment for any reason.

QL NANO LITHIUM is produced/distributed by



Via Giovanni Gentile, 16/A - 46044 Goito (MN), Italy
info@azichem.com Tel. +39 0376.604185 /604365 Fax +39 0376 604398



www.azichem.com

Updated: **24/02/2018**
General sales conditions and legal
notices on
www.azichem.com/disclaimer