

**PRODUCT:****ARMADILLO L (NANO FORMULATION)****DESCRIPTION:**

**ARMADILLO L** sealer is a proprietary blend of silica (Si) polymers which penetrate concrete surfaces providing an increase in abrasion resistance and a reduction in the surface absorption of liquids. The nano Lithium silicate (does not contain any Potassium or Sodium silicate) and silicate compounds present in **ARMADILLO L** each play a unique role in densifying and sealing concrete. The nano Lithium Silicate in **ARMADILLO L** penetrates deep within the matrix and chemically reacts with calcium hydroxide (also known as portlandite) in the surface to produce calcium silicate hydrate (CSH) – the primary strength-providing portion of concrete paste. Portlandite is a soft, porous mineral that is subject to carbonation and chemical attack, so replacing it with the much stronger CSH is a major benefit of **ARMADILLO L**. The silicate in **ARMADILLO L** also reacts with the concrete to form a hydrophobic polymer within the pores and on the concrete surface. The ultimate result is a concrete floor that is exceptionally dense and liquid-repellent, which equals long-lasting protection and durability.

**ARMADILLO L** is water based. It generally dries tack free in 2 to 4 hours at 21°C @ 50% RH.

**PRIMARY APPLICATIONS**

- Interior or exterior
- Warehouse floors
- Commercial floors
- Manufacturing plants
- Residential garages and basements
- Distribution centers
- Reduces porosity and increases hardness of the concrete surface
- Combines with the concrete becoming part of the matrix and lasts the lifetime of the substrate. (Loss of the water beading characteristic over time does not mean the sealer has degraded)
- V.O.C. compliance
- Complies with GREEN STAR- OFFICE DESIGN V3 IEQ-13
- Resists penetration of oil and many chemicals
- Reduces the ingress of carbon dioxide and resulting carbonation (degradation of the substrate)
- Minimizes tyre marks and enables them to be more easily removed
- Equipment can be cleaned with water
- Can be applied to fresh, new or existing concrete
- Low sheen enhances the appearance of concrete surface
- Will not blush
- Buffable
- Compatible with bond breakers for tilt-up projects.

**ADVANTAGES****OF USE:****TECHNICAL  
INFORMATION****Typical Performance****Drying Time:**

Light Foot Traffic.....4-6 hours

Wheel Traffic.....24 hours

**Shelf Life:** 2 years in original, unopened package.**APPEARANCE:**

**ARMADILLO L** is a clear liquid which dries transparent. After placing, the color of the concrete may initially appear darker than the surrounding concrete. As the sealer cures and dries out, the treated concrete will gradually increase in tightness with a subsequent increase in gloss. If additional immediate gloss is desired, the floor may be dry buffed with a buffing pad after the sealer has cured for 24 hours.

**COVERAGE:**

One litre of **ARMADILLO L** will cover 4-5 m<sup>2</sup> /litre) of steel trowelled surface depending on the porosity of that surface. When **ARMADILLO L** is used as final treatment on a metallic or mineral aggregate hardened surface, the coverage may be greater than indicated above. For other concrete

**NEW  
CONCRETE:**

**EXISTING  
CONCRETE:  
APPLICATION:**

**CLEAN-UP:**

**LIMITATIONS:**

**FIRST AID:**

**STORAGE:**

**INCOMPATIBLE  
WITH**

**PACKS:  
DISCLAIMER:**

floors coverage is still dependent upon the final surface texture.

**Surface Preparation-** Cure the concrete using by **Surface Cure R** from **CHEMICAL HOUSE** Pty Ltd a curing compound complying with AS3799. For fast track projects, new concrete should cure seven (7) days minimum and adherence to Surface Cure R data sheet for removal. No residue of Surface Cure R should be present as its presence will reduce the effectiveness of the treatment.

Allow concrete to air dry a minimum of 24 hours prior to application of **ARMADILLO L**. Insufficient drying of the concrete will prevent full penetration of **ARMADILLO L**, reducing its effectiveness.

**Surface Preparation-**The concrete surface must be clean, dry and free of any contaminant or coating.

Apply **ARMADILLO L** at the suggested rate (5m<sup>2</sup>/L) by broom or low-pressure sprayer. Keep the entire surface of the concrete wet with **ARMADILLO L** for a minimum of 30 minutes. The material may be broomed around on the surface to ensure good coverage. As the **ARMADILLO L** begins to thicken and gel (but no more than 60 minutes after initial application) broom and squeegee the excess material on to the adjacent floor area next to be treated. If necessary, lightly sprinkle water on the surface to aid in removal. Continue until the entire floor has been treated. Vacuum or squeegee to remove any excess material. When the owner is ready to take occupancy of the building, but before equipment is placed on the floor, an additional application of **ARMADILLO L** may be applied to increase the chemical and wear resistance of the concrete surface.

**Soft-Cut Saw Joints-**If the floor joints will be cut using the *Soft-Cut* saw method, treat the floor surface with **ARMADILLO L** (including flooding the joints) after the saw cutting operation. The applicator should be sure the excess cement dust remaining after sawcutting has been removed from the concrete surface prior to application of **ARMADILLO L**.

After the slab has cured the appropriate number of days, the joints may then be cleaned a final time and the joint filler applied.

Clean brooms, tools and all equipment and sprayers with potable water immediately after use. The residue from application and clean up process is non-toxic.

Allow the product to dry a minimum of 4-6 hours before exposure to traffic.

- Protect **ARMADILLO L** from freezing. In the event of freezing, thaw and stir or agitate before using.
- Do not leave any **ARMADILLO L** residue on the treated concrete surface. Excess hardened material must be removed with a grinder.
- **ARMADILLO L** is not recommended for use as a curing compound. It does not meet the requirements of ASTM C-309, ASTM C-1315 or AS 3799.
- Protect metals, glass, wood, paint or brick from contact with **ARMADILLO L**. If accidentally oversprayed, wash surface with potable water **IMMEDIATELY**.

For Advice, contact a Poisons Information Centre (Phone Australia 131126: New Zealand 03 4747000 or a doctor (at once). If swallowed, do NOT induce vomiting.

If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by the Poisons Information Centre, or a doctor, or for at least 15 minutes. If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water.

Not classified as a dangerous substance for purpose of transport. Not to be loaded with dangerous when wet substances (Class 4.3), Oxidising Agents (Class 5), or Foodstuffs. Keep containers cool and closed.

Class 4.3, Class 5, Class 8. Corrodes Aluminum, copper, brass, bronze, zincs, tin & their alloys.

Will also slowly absorb carbon dioxide, forming an insoluble white gelatinous precipitate of silica. Will gel with acids.

5L, 20L, 200L, 1000L

This Product Data Sheet (PDS) summarises our best knowledge of the product, including how to use and apply the product based on the information available at the time. You should read this PDS carefully and consider the information in the context of how the product will be used, including in conjunction with any other product and the type of surfaces to, and the manner in which, the product will be applied. Our responsibility for products sold is subject to our standard terms and conditions of sale. Chemical House does not accept any liability either directly or indirectly for any losses suffered in connection with the use or application of the product whether or not in accordance with any advice, specification, recommendation or information given by it.

Ref: Armadillo\_W\_April\_2011\_pds.doc

Date: April 2011