



NewLook International, Inc. NanoSet Densifer™

Technical Information Sheet

NEWLOOK

NanoSet Densifer™

NewLook NanoSet Densifer is a blend of inorganic polymers that penetrates concrete to increase surface density and hardness, as well as provide additional protection and longevity to the concrete substrate. Utilizing a proprietary and “green” manufacturing process, NanoSet Densifer’s unique formulation of uniform, concentrated, Nano-sized silica particles, penetrates deeply into concrete surfaces bonding with the cementitious components of the concrete.

NanoSet Densifer reduces the potential for freeze/thaw damage, shrinkage cracking, carbonation, efflorescence and rebar corrosion caused by salts and moisture penetration. Surface applications on new concrete surfaces REDUCE the potential for these problems before they happen.

NanoSet Densifer makes an extremely hard, dense floor surface that improves wear resistance to foot and fork lift traffic. It is water-based, environmentally friendly and VOC compliant in all US states and territories.

HOW NANOSSET DENSIFER™ DENSIFIER IMPROVES THE PHYSICAL PROPERTIES OF CEMENT:

The formulation penetrates and scavenges excess calcium hydroxide (Portlandite), a byproduct of the original hydroxide process, and reacts with the Portlandite and water to form a hydro-calcium-silicate gel (HCS). Treatment with NanoSet Densifer reduces the void and capillary spaces normally caused by bleed water. This aids in the formation of significantly denser cement paste which improves vapor and moisture barrier actions.

The ultimate result of treating concrete and mortar with NanoSet Densifer is a lower porosity which means water-borne salts and chemicals can not easily penetrate the concrete. Treated concrete and mortar surfaces improve maintenance capabilities and can improve the bond between coatings and the substrate. Treated surfaces have enhanced bonding quality and prevent peeling, cracking and loss of bond caused by capillary moisture or internal chemical reactions.

USES AND BENEFITS

- Ideal for concrete polishing
- Excellent for use to protect the concrete surface against spalling and chalking
- Improves adhesion for coatings and decorative stains
- Fills porosity/capillaries of concrete creating a permanent bond that makes floors and walls harder, less prone to dusting and absorption of most liquids
- Resists penetration of many liquids including oils and chemicals
- Helps minimize rubber tire marks in warehouse applications
- Application equipment may be cleaned with water
- Will not discolor or blush over time
- Not affected by bond breaker systems when used as directed
- Will not leave a white cast on floor if over used or not removed
- Reduces operating costs by increasing ease of maintenance and cleaning
- Meets all VOC regulations including California and meets LEED Qualifying standards
- Increases density and hardness of cementitious-based materials
- Reduces the potential for chloride ion (salt) intrusion
- Reduces shrinkage cracking in new “green” concrete slabs
- Improves the substrates ability to resist water intrusion which lowers the potential for freeze/thaw damage
- Reduces the need for a silica fume and fly ash additives

PRIMARY APPLICATIONS

- Interior or exterior concrete (vertical or horizontal)
- Warehouses/Distribution center floors
- Manufacturing plants

- Medical and Research
- Residential garages and floors
- Commercial floors

INDUSTRIAL

- Bridges, overpasses, on-grade, and suspended slabs and Water treatment plants
- Parking garages, ramps, decks, airport runways, taxiways, and ramp areas
- Reservoirs, dams, concrete pipes, and flumes
- Tunnels, mine shafts, pond retainers
- Secondary containment and concrete tanking areas

COMMERCIAL

- Light weight concrete, pools, fountains, water retention ponds and pool plasters
- Pre-cast panels, tilt-up, brick mortar joints, exterior stucco, and concrete masonry units (CMU)
- Textured concrete, mortars, grouts
- Drive-ways, car parks, side walks, and patios
- Above or below grade positive or negative side application

PERFORMANCE ADVANTAGES

- Lower pH improves reactivity and stability of materials
- Low viscosity and smaller molecule size provides deeper and more complete penetration
- Will not peel
- Reduces dusting
- Can be applied to newly troweled green slabs

NEW CONCRETE (GREEN)

NewLook NanoSet Densifer may be applied to newly installed concrete after the final trowel while the slab is still fresh and green. Concrete must be clean and free of all contaminating materials such as curing compounds, bond breakers, form release oils or construction dust and debris, etc. Use a low-pressure sprayer or pump sprayer to achieve a consistent, even application and to ensure consistent coverage of the surface. Re-apply as necessary to keep surface wet for 10-20 minutes. Let surface dry. No cleaning, flooding, neutralizing or rinsing is necessary prior to polishing. If curing agent is to be used, it can be applied over dried NanoSet Densifer. Use NanoSet Densifer as a surface preparation product for NewLook Concrete Color Stains and other concrete coatings; prior to coating or staining, thoroughly rinse or pressure wash the surface until there is no debris or dust and ensure the concrete surface is pH neutral.

SURFACE PREPARATION

Remove all loose or broken mortar and all previous coatings, toppings or other foreign materials. Pressure-wash the concrete or masonry substrate with a minimum of 3,000 psi to remove any contamination, loose or broken cement paste and aggregates. Ensure that no previous coatings, hardeners, form oils, paints, sealers or any other material that could prevent NanoSet Densifer from entering the concrete or masonry surface. After pressure washing the substrate should readily absorb water and not show any signs of water beading on the surface.

EXISTING, CURED CONCRETE

NewLook NanoSet Densifer may be applied to concrete of any age. Surface must be clean and structurally sound. Surface also must be clear of membrane forming curing compounds, sealers, oils, dust and other surface contaminants. For best results use NewLook line preparation products, such as Concrete Cleaner™, Concrete Degreaser™, EcoAcid™, EasyStrip™ or QuickEtch™ depending on the situation. Apply enough NanoSet Densifer to keep the surface wet for 10 to 20 minutes. Let surface dry 1 hour before heavy traffic.

Applying NanoSet Densifer For Polishing:

- Once the surface is clean, and if more aggressive surface preparation is needed to remove surface contaminants, 60-100 grit sanding screens can be used. If such additional sanding or scrubbing was necessary, then you must clean off and remove all debris prior to applying NanoSet Densifer.
- Use a low-pressure sprayer or pump sprayer to apply NanoSet Densifer. Create an even sheen across surface to ensure complete saturation of surface. Apply enough material to keep the surface wet for 10 to 20 minutes. Grind or polish once the surface is dry.
- Diamond grinding or polishing to an 800-grit finish after applying NewLook NanoSet Densifer will render a very durable and stain resistant floor surface. Generally, you will add color after a 200-400 grit finish.

Applying NanoSet Densifer For Concrete Protection and Surface Preparation:

- Once the surface is clear of contaminants and membrane forming compounds, use a low-pressure sprayer to apply NanoSet Densifer to form an even sheen across surface to ensure complete saturation of surface. Apply enough to keep the surface wet for 10 to 20 minutes. Then, allow the surface to dry.
- If staining concrete with NewLook Concrete Stains, pressure wash the surface with at least a 3,000 psi washer and follow NewLook's surface cleaning instructions.
- If staining or coating concrete surfaces with products other than NewLook Concrete Color Stains, follow the manufacturer's concrete cleaning and preparation instructions.
- For vertical applications, start from the bottom up.

AFTER CURE

Make repairs to the substrate or apply coatings and/or toppings after NanoSet Densifer has been applied and cured for at least 24 hours. Wait one (1) week before making concrete surface repairs in order to allow for the substrate to gain strength. Prepare the surface by pressure washing to ensure that no contamination is present and to condition the substrate for repair materials. Consult the repair product's instructions for preparation and application procedures.

COVERAGE AND DILUTION

NanoSet Densifer comes in concentrated form. Just add water, stir and spray on the surface.

- **Packaging:** 16 oz Sample, 1 Gallon, 5 Gallons, drum, tote
- **New Concrete:** add 6 parts water
- **Existing Concrete:** add 4 parts water
- **Coverage:** Depends on porosity, surface temperature, and humidity. Average is approximately 400 – 500 sf per diluted gallon.

CLEAN-UP

Clean tools and equipment with water immediately after use. Residue from application and clean-up is non-toxic. Protect metals, glass, wood, paint or brick from contact with NewLook NanoSet Densifer. Wash over-sprayed areas immediately with potable water.

MAINTENANCE

Routine sweeping, mopping and periodic mechanical scrubbing with a neutral pH, non-rinsing cleaner or water is allowable directly on NanoSet Densifer, but not required. NewLook **NanoSet Cleaner™** is recommended when cleaning. Avoid using acidic cleaners, which may etch the surface over time and cause the finish to dull. No aggressive scrubbing brushes such as stratogrit, nylogrit or other aggressive scrubbing brushes should be used. Avoid detergents containing hydroxides or sulfates.

WARRANTY

The following warranty is made in lieu of all other warranties, either expressed or implied. This product is manufactured of selected raw materials by skilled technicians. Neither seller nor manufacturer has any knowledge or control concerning the purchaser's use. The only obligation of either seller or manufacturer shall be to replace any quantity of this product, which is proved to be defective. Any claim of defective product must be received in writing within one year from date of shipment. Neither seller nor manufacturer assumes any liability for injury, loss, or damage resulting from use of this product.

NEWLOOK INTERNATIONAL, INC. PRODUCTS available through: