

VANDIDAD Dry-Packed Products

VANDIDAD Engineering Design

Engineering Design

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DRY-PACKED PRODUCTS

- Structural Ultra Lightweight Nano Concrete (SLWC)
- Self-leveling Mortar (SLC)
- Self Consolidating Concrete (SCC)
- Repair Mortar
- Normal Concrete (NC)





DRY-PACKED PRODUCTS

Instruction:

- Empty the entire content of the bags into the mixer chamber.
- Add the required amount of water and additives according to the specific label of the product, then prepare and cure concrete according to the instruction on the bags.
- *Mix for 5 minutes (in case of transferring concrete with a pump continue mixing operation until suitable homogeneity achieves).*
- Use the prepared concrete for up to 20 minutes after mixing.

Storage:

- Storage condition of the product bags is similar to cement bags
- In case of eye contact, immediately rinse with water (at least 15 minutes)
- In case of skin contact, wash with water and soap
- Keep out of reach of children
- Bags should be kept away from water and moisture
- The maximum storage time is 3 months
- Avoid direct contact with the floor







Advantages:

- Reduces the weight of the structure hence increasing its earthquake resistance
- Reduces the total costs of the construction by decreasing the dimensions of structural components, hardware, materials, etc.
- Increase the life cycle of the structure
- Increases the applicable area of a building (by reducing the size of the structural sections)
- Improve the resistance of the structure against destructive environmental factors
- Help the strength of the structure against permeability





Applications:

- All types of roofs in steel and concrete structure (Concrete Slab, One Way Ribbed Slab, Metal Deck, Composite, etc.)
- All types of structural components of a concrete structure
- Pre-stressed and Post-Tensioned prefabricated or in-situ segments
- Lightweight prefabricated and exposed components
- All of the concrete parts of infrastructures: Bridge decks, Tunnels, Railways







Technical Specifications SLWC-VN112



Moist Density: 1.55 to 1.65 ton / m³ Dry Density: 1.35 to 1.45 ton / m³ Max Aggregate Size: 19.0 mm Characteristic Strength: 200 to 250 Kg/cm² Color: Gray

Packing: 25 or 50 kg bag, 1 Ton big bag & Palletting



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Technical Specifications SLWC-VN312



Moist Density: 1.80 to 2.00 ton / m³ Dry Density: 1.60 to 1.70 ton / m³ Max Aggregate Size: 19.0 mm

Characteristic Strength: 350 to 400 Kg/cm²

Color: Gray

Packing: 25 or 50 kg bag, 1 Ton big bag & Palletting



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Technical Specifications SLWC-VN211



Moist Density: 1.60 to 1.70 ton / m³

) Dry Density: 1.40 to 1.50 ton / m^3

Max Aggregate Size: 12.5 mm

Characteristic Strength: 200 to 250 Kg/cm²

Color: Gray



Technical Specifications

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SLWC-VN311



Color: Gray

Packing: 25 or 50 kg bag, 1 Ton big bag & Palletting



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Self Leveling Mortar

Advantages:

- No need for troweling and leveling the floor
- Rapid initial setting
- Installable from 5 mm (1/4 inches) to 125 mm (5 inches) thickness and more due to its lightweight
- Can be coated with Polyurethane or Epoxy within 18 hours
- Very high adhesion without shrinkage and absorption of dust
- Saves time, workforce, and costs
- Improves the durability and mechanical properties of mortar in case of using Nano-mortars
- Reduces the weight and hence the cost of transportation in case of using Nano-mortars

Applications:

- Leveling the floors with load and thickness restrictions
- Leveling existing ceramic or cement tiles and wood floors to provide a smooth, even surface
- Exposed prefabricated components
- Showroom floors, commercial shopping center
- Leveling rough, uneven concrete surfaces



Nano Self Leveling Mortar

Technical Specifications SLC-VN110

Moist Density: 1.80 to 1.95 ton / m³

Dry Density: 1.60 to 1.75 ton / m³

Max Aggregate Size: 4.5 mm

Characteristic Strength: 200 to 400 Kg/cm²

Color: Gray



Self Leveling Mortar

Technical Specifications SLC-V220



Moist Density: $2.50 \text{ to } 2.60 \text{ ton } / \text{ m}^3$

Dry Density: 2.30 to 2.40 ton / m^3

Max Aggregate Size: 4.5 mm

Characteristic Strength: 300 to 600 Kg/cm²

Color: Gray



Advantages:

- Reduces the construction cost due to no need for vibration and fewer surface finishing operations
- Improves the durability and mechanical properties of concrete due to its uniformity and homogeneity
- Suitable for all types of segments and forms and every complicated situation
- High stability and resistance to segregation during concreting
- Increases the speed of concreting
- Reduces the noise pollution







Applications:

- All types of structural and non-structural prefabricated concrete
- Concrete structures with special architectural design
- All types of road curbs, floor covering, and slabs
- Bridge decks, urban and underwater tunnels
- Prefabricated exposed components





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Technical Specifications SCC-V011



Moist Density: 2.45 to 2.55 ton / m^3

Dry Density: 2.25 to 2.35 ton / m³

Max Aggregate Size: 12.5 mm

Characteristic Strength: 350 to 500 Kg/cm²

Color: Gray



Technical Specifications SCC-V012



Moist Density: 2.45 to 2.55 ton / m^3

Dry Density: 2.25 to 2.35 ton / m³

Max Aggregate Size: 19.0 mm

Characteristic Strength: 350 to 500 Kg/cm²

Color: white



Self Consolidating Concrete (SCC)

Technical Specifications SCC-V021



Moist Density: 2.45 to 2.55 ton / m^3

Dry Density: 2.25 to 2.35 ton / m³

Max Aggregate Size: 12.5 mm

Characteristic Strength: 350 to 500 Kg/cm²

Color: white



Technical Specifications SCC-V022



Moist Density: 2.45 to 2.55 ton / m^3

Dry Density: 2.25 to 2.35 ton / m³

Max Aggregate Size: 19.0 mm

Characteristic Strength: 350 to 500 Kg/cm²

Color: Gray

Packing: 25 or 50 kg bag, 1 Ton big bag & Palletting



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Repair Mortar

Advantages:

- Hydrophobic and impenetrable
- Resistant to Environmental factors
- Rapid initial setting
- Saves time, workforce, and costs
- Very high strength and adhesion to the existing surface
- Improves the durability and mechanical properties of mortar in case of using Nano-mortars

Applications:

- Restores the structural integrity and improves the safety of a structure.
- Restores the appearance of crumbling or cracked concrete
- Restores the durability of the structure and significantly extends its lifetime





RM



Repair Mortar

Technical Specifications RM-01



Dry Density: 2.00 to 2.10 ton / m³

Max Aggregate Size: 6.50 mm

Characteristic Strength: 400 to 600 Kg/cm²

Color: Gray (White or other colors in case of coating application)



Nano Repair Mortar

Technical Specifications RM-N02



Dry Density: 2.00 to 2.10 ton / m³

Max Aggregate Size: 6.50 mm

Characteristic Strength: 400 to 600 Kg/cm²

Color: Gray (White or other colors in case of coating application)





Advantages:

- Eliminating the hydration and setting of concrete along the way by removing water from the mixture during the transportation process
- Guaranteed quality control in the factory's quality control unit and its ability to be mixed in the most remote construction sites

Applications:

• All components of concrete structures







Normal Concrete

Technical Specifications NC-V012



Moist Density: 2.45 to 2.55 ton / m^3

Dry Density: 2.25 to 2.35 ton / m^3

Max Aggregate Size: 19.0 mm

Characteristic Strength: 250 to 400 Kg/cm²

Color: Gray



Normal Concrete

Technical Specifications NC-V011



Moist Density: 2.35 to 2.45 ton / m^3

Dry Density: 2.25 to 2.35 ton / m^3

Max Aggregate Size: 12.5 mm

Characteristic Strength: 250 to 400 Kg/cm²

Color: Gray



Structural Ultra-Lightweight Nano Concrete







Exporting Dry-Packed Structural Ultra-Lightweight Nano Concrete Project location: Malaysia Density: 1.85 ton/m³ Characteristic Strength: 600 Kg/cm²



Structural Ultra-Lightweight Nano Concrete











Dry-Packed Structural Ultra-Lightweight Nano Concrete Project location: Iran – Atlas Mall Density: 1.7 ton/m³ Characteristic Strength: 400 Kg/cm²



Structural Ultra-Lightweight Nano Concrete







Dry-Packed Structural Ultra-Lightweight Nano Concrete Project location: Iran – Vahidieh Residential Building Concrete Structure designed based on SLWC Density: 1.40 ton/m³ Characteristic Strength: 250 Kg/cm²



Structural Ultra-Lightweight Nano Concrete







Dry-Packed Structural Ultra-Lightweight Nano Concrete Project location: Iran – Kasra Hospital Concrete Structure designed based on SLWC Density: 1.60 ton/m³ Characteristic Strength: 350 Kg/cm²



Structural Ultra-Lightweight Nano Concrete









Structural Ultra-Lightweight Nano Concrete Project location: IRAN – Iran Mall Concrete subfloor with dimension of 600*1200 mm2 and thickness of 46 mm based on SLWC Characteristic Strength: 1100 Kg/cm²

