

PREMIUM PLUS – Powerflex Lightweight Mortar

CX 38

Lightweight 4-in-1 Mortar

DESCRIPTION:

UZIN CX 38 is an advanced lightweight, special cement-based, polymer-modified non-sag mortar for the installation of most large-format porcelain, ceramic, quarry, glass, mosaic, and natural stone in interior, exterior, freeze/ thaw, and submerged conditions.

UZIN CX 38 exceeds ANSI A118.4 for polymer-modified mortar performance, ANSI A118.11 EGP modified dry-set mortar, ANSI A118.15 TE, and ISO P1 for plywood underlayment performance and compatibility.

SUITABLE FOR:

- ▶ Large-format porcelain, ceramic, quarry, saltillo, glass, and most types of stable natural stone
- ▶ Over properly prepared concrete, masonry, cement mortar beds, and leveling compounds
- ▶ Over tile industry-recommended backerboards
- ▶ Over gypsum wallboard (interior)
- ▶ Over industry-standard plywood (interior, dry conditions)
- ▶ Over radiant-heated substrates
- ▶ Over properly prepared, stable, and well-bonded ceramic tile, vinyl floor coverings, and cutback adhesive (interior, dry conditions)
- ▶ Over UZIN brand surface preparation products and membranes, where applicable
- ▶ For the installation of tile and uncoupling systems
- ▶ For interior and exterior, residential and commercial applications, with exceptional freeze-thaw properties
- ▶ For pools, spas, plazas, walkways, and applications in submerged water saturation and freeze/thaw
- ▶ For use as a skimming or patching mortar to prepare substrate voids and depressions up to 3/4" (19 mm)



FEATURES AND BENEFITS:

- ▶ Lightweight Additives
 - Designed for ergonomic handling, reducing strain on the body
 - Higher Yield per lb: 30 lbs (13.6 kg) of material effectively filling a 50 lb (22.7 kg) bag
 - Lower installed weight
- ▶ 100% Recycled Aggregates
- ▶ Formulated without silica sand – Reduced respirable silica
- ▶ High-performance raw materials
 - Outstanding workability
 - Ensures smooth application
 - Easily passes through smaller notch trowels when needed
 - Easy mixing & trowelability
- ▶ Exceeds ANSI A 118.15 TE - Outstanding resistance to vertical and horizontal sag, with exceptional time and mechanical adhesion.

TECHNICAL DATA:

Packaging	30 lbs (13.6 kg)
Mixing ratio	5.8 – 6.3 quarts (5.5 – 6.0 liters)
Application temperature	40 – 95°F (5 – 30°C)
Drying time	Ready for Grouting Walls: 6 hours Floors: 12 hours*
Open time	30 minutes
Working time	Up to 3 hours
Storage	Minimum of 12 months, in warm, dry conditions

* At 70 °F (21 °C) and 65 % relative humidity. Temperature, conditions and surface porosity will affect dry time



PRODUCT PROPERTIES:

UZIN CX 38 is an extremely fine, special cement-based tile bonding mortar with a latex dry polymer additive included. UZIN CX 38 has outstanding handling and stability properties and is ISO C2TE-S1 classified for high performance, non-sag, and extended working properties. UZIN CX 38 exceeds ANSI A118.4 for polymer-modified mortar performance, ANSI A118.15 TE, and ISO P1 for plywood underlayment performance and compatibility. VOC is 0 calculated

SUBSTRATE PREPARATION:

- ▶ All substrates should be structurally sound, stable, dry, clean, and free of any substance or condition that may reduce or prevent adhesion. See UZIN's Surface Preparation Requirements document for tile and stone installation systems.
- ▶ Today's large-format tile and stone demand flatter floors more than ever. Look to UZIN's industry-leading range of self-leveling and patching systems to prepare the surface to meet today's installation tolerances.
- ▶ For waterproofing, see UZIN's HYDROSTOP family of waterproofing membranes.
- ▶ For challenging jobsite conditions over gypsum, weak surfaces, smooth surfaces, cracks, coatings, wood, and existing floor coverings, UZIN has some unique primers and reinforcing systems that solve problems and save time.
- ▶ Suitable gypsum and highly absorbent substrates, such as lightweight concrete, must be primed with UZIN PE 260 (diluted 1 : 3) or PE 360 prior to application of UZIN thinset mortar.
- ▶ Non-porous substrates, such as existing tiles, must be primed with UZIN PE 280 prior to application. Alternatively, mechanically roughen the existing surface, apply a scratch coat of UZIN CX 38, allow the scratch coat to harden and dry completely before proceeding with tile installation.

ANSI Testing and ISO– when mixed with water:		
Test Method	ANSI Requirement	CX 38 Performance
ANSI A118.15 Shear Strength	1 day: 100 psi	>150 psi
	(0.68 MPa)	(1.03 MPa)
Impervious porcelain mosaics	7 day: 300 psi	350–400 psi
	(2.06 MPa)	(2.41–2.75 MPa)
	7d water immersion:	>200 psi
	200 psi (1.37 MPa)	(>1.37 MPa)
	28 day: 400 psi	>400 psi
	(2.74 MPa)	(>2.74 MPa)
	28 day freeze/thaw:	>250 psi
	250 psi (1.72 MPa)	(>1.72 MPa)
ANSI A118.11 Shear Strength	7-day quarry to wood:	140–180 psi
	100 psi (0.69 MPa)	(0.97–1.24 MPa)
Exterior Glue Plywood	28-day quarry to wood:	>170 psi
	150 psi (1.03 MPa)	(>1.17 MPa)
	84-day quarry to wood:	150–200 psi
	150 psi (1.03 MPa)	(1.03–1.38 MPa)
Test Method	ISO 13007 Spec [Mpa]	CX 38 Performance
ISO 13007 Spec (Mpa)	28-day air cure 1.0 MPa	2–3 MPa
	Heat Age 1.0 MPa	2 MPa
	Water immersion 1.0 Mpa	1.0–1.5 MPa
	Freeze Thaw 1.0 Mpa	1.5–2.0 MPa
	Transverse Deformation [mm] >2.5	>2.5 mm
	30 min open time 75	>100
	Slip (mm) 0.5	<0.5mm

Notch Size (in)	Notch Size (mm)	Coverage Range (sq. ft.)	Coverage Range (m ²)
1/4" x 1/4" x 1/4"	6 mm x 6 mm x 6 mm	90 – 100 sq. ft.	8.36 – 9.29 m ²
1/4" x 3/8" x 1/4"	6 mm x 10 mm x 6 mm	63 – 70 sq. ft.	5.85 – 6.5 m ²
1/2" x 1/2" x 1/2"	12 mm x 12 mm x 12 mm	45 – 50 sq. ft.	4.18 – 4.65 m ²

APPLICATION:

- ▶ For one 30 lb (13.6 kg) bag of UZIN CX 38, use 5.8 - 6.3 Quarts (5.5–6.0 liters) of clean water. To mix smaller quantities by hand, use 3 parts powder to 1 part water by volume. Do not overwater. Pour water into the mixing container first, then add the UZIN CX 38 powder and mix for approximately 1–2 minutes to achieve an even, lump-free consistency.
- ▶ For best mixing results, mechanically mix with a mixing paddle and a mechanical 1/2" (12 mm) drill with approximately 600 RPM. If mixing by hand, use a margin trowel and mix vigorously.
- ▶ Allow to stand (slake) for approximately 2–3 minutes and then remix. This is an important stage to allow chemicals to activate.
- ▶ Using a recommended notch trowel appropriate for achieving the correct backing transfer, apply the mortar to the substrate with the flat side of the trowel first (key coat). Then, comb with the notched side to achieve uniform distribution of mortar in 1 direction. Avoid trowelling in random "swirl" patterns.
- ▶ Place tile into the mortar and push tiles back and forth in a perpendicular direction to the trowel ridges. This allows for superior transfer and reduces voids behind the tile. Key in thinset to back of tile for best results.
- ▶ Respect the open time of the mortar and place the tile into the mortar while the mortar is fresh. Do not allow mortar to "skin" over before placing tile. If skinning occurs, remove and replace with fresh mortar. When working in conditions that are hot, dry, windy, and or in direct sunlight, expect mortar open time to be significantly reduced.
- ▶ Check mortar transfer periodically to ensure minimum transfer rates are achieved.
- ▶ Provide for expansion and control joints as per TCNA Detail EJ171 (USA) or TTMAC Detail 301MJ (Canada).

IMPORTANT NOTES:

- ▶ **Shelf Life:** Minimum 12 months in original packaging when stored in dry conditions. Tightly re-seal opened packaging and use the contents as quickly as possible.
- ▶ UZIN CX 38 can also be used for applications involving uncoupling membranes and UZIN waterproof membranes.
- ▶ Optimum application conditions are 60–77°F (16–25°C) and relative humidity below 65%. Low temperatures, high humidity, and greater material thicknesses will delay drying. High temperatures and low humidity will accelerate the setting. In summer, store in cool conditions and use cold water.

- ▶ All tile shall be installed in strict accordance with ANSI A108.5, TCNA (USA), and TTMAC (Canada) standards. If you are not familiar with industry recommendations, please contact these organizations. Tile failures occur, and manufacturers' warranties are void when industry standards are not respected.
- ▶ Use a notch trowel to achieve a minimum backing transfer of 80 % for interior dry conditions and greater than 95% for exterior and wet locations. Back-buttering tile and periodically checking transfer are recommended best practices by UZIN and the industry.
- ▶ UZIN CX 38 is not recommended for moisture-sensitive natural stone or synthetic tile. In these cases, use UZIN TR 400 2-component urethane adhesive.
- ▶ UZIN CX 38 is available in white for setting light colored tile and translucent natural stones.
- ▶ UZIN CX 38 is recommended for thin-bed to large and heavy tile capacity up to 3/4" (19 mm) trowel application.
- ▶ Clean hands, tools, and tile while the mortar is still fresh
- ▶ Protect tilework from foot traffic for 12 hours and heavy traffic for 3 days. Protect from frost and rain for 21 days after installation. For radiant heated applications, run and test the system in advance to ensure it is working properly. Then turn off prior to installation and leave off for 7 days after grouting.
- ▶ For technical assistance that pertains to this product and the jobsite conditions, please contact UZIN's technical service department at 1-866-505-4810. We are here to help you achieve the best work possible.

PROTECTION OF THE WORKPLACE AND THE ENVIRONMENT:

Precautions: Carefully read and follow all precautions and warnings on the product label. For complete safety information, please refer to the Safety Data Sheet (SDS) available at uzin.com.

DISPOSAL:

For disposal of products, follow the applicable laws and regulations. Where possible, collect product residues and re-use. Do not allow the material to get into sewers, waterways or unlined ground surfaces. Empty packaging may contain product residue.