



VW - 345 (Platinum) Polymer-Based Adhesive

Premium polymer-based adhesive for interior and exterior tile and natural stone fixing.



Key Advantages

- Ready-to-use single-component system – add water only
- Cost-effective and user-friendly application
- Suitable for application thickness up to 12 mm
- Excellent adhesion on a wide range of substrates
- Shear bond strength exceeds ANSI A118.4 requirements
- Conforms to EN / ISO standards – C2TE classification
- Meets and surpasses IS 15477:2019 Type 3 T specifications
- Resistant to water and impact
- Provides strong, durable bonding with reduced risk of debonding
- Suitable for interior and exterior floor & wall applications

Suitable Substrates

- Concrete and concrete block surfaces
- VDF / Tremix finished concrete
- Cement-based mortar beds and screeds
- Cement plastered surfaces
- Ceramic tiles, vitrified tiles, and natural stone
- Glass mosaic tiles
- Brickwork and masonry walls
- Cement backer boards
- Cement terrazzo flooring
- Calcium silicate boards
- Gypsum wallboards

** Refer to the respective backer board manufacturer's technical data for recommended applications and load-bearing limitations.

Application

Suitable for interior and exterior floor and wall installations of ceramic, vitrified, semi-vitrified, glass mosaic tiles, precast terrazzo, and natural stone on concrete and various cement-based substrates. Its strong underwater shear bond makes it ideal for wet areas such as swimming pools, saunas, water features, and bathrooms. The adhesive is also suitable for tile-on-tile installations and can be used as a slurry bond in wet-on-wet applications.

PERFORMANCE PROPERTIES

VW-345 (Platinum) Tile Adhesive mixed with Water

Applicable Standards:

ANSI A118.1-1999; EN 12004 & ISO 13007; IS15477:2019

ANSI Data

Property : Test Method	Requirement	Typical Values
Open Time (20 Minutes at 28 days): ANSI A118.1 Clause -5.3	≥75 psi (0.50 MPa)	95 psi – 100 psi (0.65 –0.69 MPa)
Sag: ANSI A118.1- Clause 6.0	≤0.02 Inches (0.50mm)	0.016 – 0.018 Inches (0.40-0.45 mm)

Glazed wall tile Shear Strength

7 Days: ANSI A118.1 – Clause 7.1.2	>200psi (1.38 MPa)	200-225 psi (1.38 -1.55 MPa)
7 Days Water immersion: ANSI A118.1- Clause 7.1.3)	>150psi (1.03 MPa)	150-175 psi (1.03 -1.20 MPa)

Porcelain Mosaic Tile Shear Strength

1 Day: ANSI A118.1 – Clause 7.2.2	>50psi (0.34 MPa)	50 -75 psi (0.34 -0.51 MPa)
7 Days: ANSI A118.1 – Clause 7.2.3	>150psi (1.03 MPa)	50 -75 psi (0.34 -0.51 MPa)
7 Days Water immersion: ANSI A118.1 – Clause 7.2.4	>100psi (0.69 MPa)	50 -75 psi (0.34 -0.51 MPa)
28 Days: ANSI A118.1 – Clause 7.2.5	>150psi (1.03 MPa)	50 -75 psi (0.34 -0.51 MPa)

28 Days: Freeze- Thaw cycling. ANSI A118.4 – Clause 7.2.5	>175psi (1.20Mpa)	225 – 275 psi (1.54 – 1.89 Mpa)
12 Weeks: ANSI A118.4 – Clause 7.2.7 Qu	>200psi (1.38Mpa)	250 – 300 psi (1.72 – 2.06 Mpa)
Tile Shear Strength		
28 Days: ANSI A118.4 – Clause 7.3.2	>150psi (1.03Mpa)	250 – 300 psi (1.72 – 2.06 Mpa)
28 Days: Freeze- Thaw cycling. ANSI A118.4 – Clause 7.3.3	>100psi (0.69Mpa)	250 – 300 psi (1.72 – 2.06 Mpa)

The adhesive mortar conforms to ANSI A118.4ET

EN / ISO Data

Property: Test Method	Requirement	Typical Values
Open Time: EN 1346	$\geq 0.50 \text{ N/mm}^2$	0.75 – 1.00 N/mm ²
Slip Resistance: EN 1308	$\leq 0.50 \text{ mm}$	0.25 – 0.35 mm
Tensile Adhesion Strength		
Initial: EN 1348 – Clause 8.2	$\geq 1.00 \text{ N/mm}^2$	1.25 – 1.50 N/mm ²
After Water Immersion: EN 1348 – Clause 8.3	$\geq 1.00 \text{ N/mm}^2$	1.25 – 1.50 N/mm ²
Heat Ageing: EN 1348 – Clause 8.4	$\geq 1.00 \text{ N/mm}^2$	1.00 – 1.25 N/mm ²
Freeze-Thaw: EN 1348 – Clause 8.5	$\geq 1.00 \text{ N/mm}^2$	1.25 – 1.50 N/mm ²

The adhesive mortar conforms to EN12004 / ISO 13007 as C2TE

IS Data

Property: Test method	Requirement	Typical Values
Tensile Adhesion		
Dry Condition – Annex A (Clause 5.1)	Minimum 1.5 N/mm ²	1.55-1.65 N/mm ²
Wet Condition – Annex A (Clause 5.1)	Minimum 1.0 N/mm ²	1.10-1.20 N/mm ²
Shear Adhesion		
Dry Condition – Annex B (Clause 5.2)	Minimum 1.5 N/mm ²	1.60-1.70 N/mm ²
Heat Ageing – Annex B (Clause 5.2)	Minimum 1.0 N/mm ²	1.10-1.20 N/mm ²
Wet Conditions – Annex B (Clause 5.2)	Minimum 1.0 N/mm ²	1.15-1.25 N/mm ²
Slip Resistance		
Slip Resistance – Annex E (Clause 5.5)	≤0.5 mm	0.35-0.45 mm

The Adhesive mortar conforms to IS 15477: 2019 - Type 3T Adhesive

Adhesive mortar conforms to IS 15477: 2019 - Type C2TE Adhesive

Packaging : 20 kg & 25kg bags

Colour : Grey / White

Shelf Life : Factory sealed containers of this product are guaranteed to be of first quality for One (1) year if stored off the ground in a dry area.

*High humidity will reduce the shelf life of bagged product

Coverage : Approx. 55-60 Sft per 20 Kg pack, using 1/4 x 1/4 (6 mm × 6 mm) square notched trowel for a bed of 3mm. (Can be used up to a maximum bed thickness of 12 mm)

Coverage will vary depending on trowel notch size, type and size of tile and substrate smoothness and evenness.

Working Properties at 70° F (21° C)

VW-345 (Platinum) Adhesive mixed with Water

Open Time	30 minutes
Adjustability Time	30 minutes
Pot Life	4 hours
Time to Foot Traffic	16 – 24 hours
Time to Heavy Traffic	28 Days

Important Note:

Performance values shown are based on laboratory tests using standardized methods. Actual on-site results may vary based on substrate condition, installation techniques, and environmental factors.

INSTALLATION

Surface Preparation

All substrates must be structurally stable, clean, and free from dust, oil, grease, loose paint, curing agents, sealers, laitance, or any other contaminants. Application temperature should be maintained between 4°C and 40°C.

Ensure the surface is level and plumb. Surface variation should not exceed 6 mm over 3 m. Uneven or rough concrete must be leveled using a cement-based screed or plaster to achieve a smooth float finish or better.

Dry and dusty concrete or masonry surfaces should be lightly moistened before application, with excess water removed. Installation is permissible on damp surfaces.

New concrete slabs must be properly cured and at least 28 days old prior to adhesive application.

No minimum curing time is required when thin-set adhesive is mixed with a latex admixture. Expansion and construction joints present in the substrate must be carried through the tile or stone installation. Do not bridge expansion joints with adhesive. Follow standard industry practices for expansion joint detailing.

For tile installation over cement backer boards, follow recommended installation guidelines specified for such systems.

Important Notes:

- For tile or stone installation over plywood or wooden substrates, use suitable waterproofing or resin-based bonding systems as recommended in the relevant Velwiin Technical Data Sheet.
- For stones with protective back mesh, the mesh and epoxy layer must be completely removed by light mechanical grinding to ensure proper adhesion.

Mixing :

Pour clean, potable water into a clean mixing container. Gradually add Velwiin Platinum adhesive powder while mixing. Use approximately 5.5–6 litres of water for every 20 kg bag. Mix manually or using a slow-speed mechanical mixer until a smooth, lump-free, workable consistency is obtained. Allow the mix to rest for 5 minutes (slaking). Remix, adjust consistency if required, and apply using an appropriately sized notched trowel.

Note: Partial or full replacement of water with a latex admixture enhances bond strength and flexibility.

For large-format tiles or exterior stone applications, consult the Velwiin Technical Team.

Application :

a) Tile / Stone Installation

Apply adhesive to the substrate using the flat side of the trowel, pressing firmly to ensure proper contact. Comb additional adhesive with the notched side of the trowel. Select a notch size that ensures full bedding.

Apply only as much adhesive as can be covered within 10 minutes. For large-format tiles (larger than 300 × 300 mm), back-buttering is recommended to achieve full support.

Fix tiles or stones into the fresh adhesive bed and press firmly. Tap gently using a rubber mallet and beating block to embed and level. Periodically lift tiles to check full adhesive transfer.

Use tile spacers to maintain consistent joint widths as specified by the architect or engineer. Remove spacers once the adhesive has set.

If the adhesive surface loses tackiness or skins over, remove it and apply fresh adhesive.

For highly absorbent natural stones that may develop moisture patches, apply a suitable impregnating sealer on all sides prior to installation. A latex admixture bottom coat may also be used to reduce moisture absorption. Refer to product-specific Technical Data Sheets.

b) Glass Mosaic Tiles (Paper-Faced)

Apply adhesive using a scraping motion with a notched trowel to ensure full contact with the substrate.

Recommended trowel sizes:

- 4 mm notch for a bed thickness of 1.5–2 mm
- 3 mm V-notch for approximately 1.5 mm thickness

Apply only the quantity that can be tiled within 10–15 minutes while the adhesive remains tacky. Fix mosaic sheets and gently press using a rubber mallet or grout float to ensure full bedding.

Align tiles carefully to maintain uniform joints. Clean excess adhesive immediately using a damp sponge or cloth.

Once the adhesive has set, lightly moisten the surface and remove the paper facing.

Note: For mosaic tiles or tiles with fiberglass mesh backing, removal of the mesh and thorough cleaning of the tile back is recommended. If mesh removal is not possible, use a resin-based adhesive system as specified in the Velwiin Technical Data Sheet.

c) Wet-on-Wet System

Velwiin High Flex adhesive can also be used as a cement slurry alternative in wet-on-wet installation systems.

Important Notes for Specifiers & Installers

- For exterior wall and floor installations, movement joints must be provided between tiles or stones and filled with a cement-based grout mixed with a grout admixture or flexible grout.
- Absence of movement joints may cause debonding due to thermal or structural movement.
- Peripheral joints must be provided so that tiles or stones are not restrained by surrounding masonry or plaster.

Ceiling Applications

Before installing tiles or stones on ceilings or overhead surfaces, verify the pull-off strength of the substrate. Cement-based substrates must be adequately strengthened or polymer-treated for overhead applications.

Hot & Cold Weather Installation

Refer to Velwiin technical guidelines for recommended installation practices under hot and cold weather conditions.

Grouting

Grouting should commence only after a minimum of 24 hours curing at 21°C. Use sanded or unsanded cement-based grout mixed with a suitable grout admixture.

- For interior areas requiring high stain resistance, use a stain-resistant grout system.
- For exterior applications, use a UV-resistant, flexible grout capable of accommodating movement.

CUSTOMER CARE

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