Technical Data Sheet

VELWIIN CHEMICALS

Tile Grout

High-performance polymer modified, un-sanded cement grout suitable for interior & exterior applications on floor and wall joints of 1mm to 3mm width.

Features / Benefits

- Benefits (Premium Technical Style)
- Engineered for long-term weather resistance
- Superior colour retention for lasting aesthetics
- Smooth application with effortless clean-up
- Low-maintenance performance
- Formulated to resist cracking and shrinkage
- Meets ANSI A118.6 and EN 13888 performance standards

Suitable Substrates

- Ceramic tiles
- Vitrified tiles
- Glass mosaic tiles
- Granite surfaces
- Marble substrates
- Precast terrazzo tiles

Application

Specially formulated for interior and exterior floor and wall joints across a wide range of ceramic tiles, vitreous and semi-vitreous tiles, glass mosaic tiles, precast terrazzo, engineered stone surfaces and natural stone installations.

Recommended for general commercial and institutional floor and wall areas. Can be mixed with clean water or Velwiin grout admix for optimal performance and is suitable for joint widths ranging from 1mm to 3mm.

PERFORMANCE PROPERTIES

Velwiin un-sanded cement grout, when mixed with clean water, conforms to the following standards:
ANSI A118.6; ISO 13007-4 (CG1) / EN 13888

ANSI Data

Property / Test Method	Requirement	Typical Values
Linear Shrinkage after 27 days: ANSI A118.6: Clause 4.3	Max 0.30%	0.19% - 0.23%
Water Absorption after 27 days: ANSI A118.6: Clause 4.4	Max 18%	13% - 16%
Compressive Strength after 1 day: ANSI A118.6: Clause 4.5	Min 500 psi (3.43 Mpa)	520 – 870 psi (3.57 – 5.98 Mpa)
Compressive Strength after 28 days: ANSI A118.6: Clause 4.5	Min 3000 psi (20.62 Mpa)	3050 – 3200 psi (20.97 – 22.00 Mpa)
Tensile Strength after 28 days: ANSI A118.6: Clause 4.6	Min 250 psi (1.71 Mpa)	270 – 400 psi (1.85 – 2.75 Mpa)
Flexural Strength after 28 days: ANSI A118.6: Clause 4.7	Min 500 psi (3.43 Mpa)	550 – 600 psi (3.78 – 4.12 Mpa)

ISO / EN Data

Property / Test Method	Requirement	Typical Values
Abrasion resistance: ISO 13007 – 4: Clause 4.4; EN 12808 - 2	≤ 2000 mm^3	1350 – 1700 mm^3
Flexural strength under standard conditions: ISO 13007 – 4:Clause 4.1.3; EN 12808 - 3	≥ 2.5 N / mm^2	3.5 – 3.9 N / mm^2
Flexural strength under freeze and thaw cycles: ISO 13007 – 4:Clause 4.1.5; EN 12808 - 3	≥ 2.5 N / mm^2	3.5 – 3.9 N / mm^2
Compressive	≥ 15 N / mm^2	21 – 22 N / mm^2
Strength under standard conditions: ISO 13007 – 4: Clause 4.1.4; EN 12808 – 4		
Compressive Strength under freeze & thaw cycles: ISO 13007 – 4:Clause 4.1.5; EN 12808 – 4	≥ 15 N / mm^2	20 – 22 N / mm^2
Shrinkage: ISO 13007 – 4: Clause 4.3 : EN 12808 – 4	< 3mm / m	1.9 – 2.3 mm /m
Water Absorption after 30 Minutes: ISO 13007 – 4: Clause 4.2; EN 12808 – 5	≤5.0 g	2.5 – 3.0 g
Water Absorption after 240 Minutes: ISO 13007 – 4: Clause 4.2; EN 12808 – 5	≤10 g	4.0 – 8.0 g

ANSI Data

Property / Test Method	Requirement	Typical Values
Linear Shrinkage after 27 days: ANSI A118.6: Clause 4.3	Max 0.30%	0.19% - 0.23%
Water Absorption after 27 days: ANSI A118.6: Clause 4.4	Max 18%	10% - 13%
Compressive Strength after 1 day: ANSI A118.6: Clause 4.5	Min 500 psi (3.43 Mpa)	570 – 900 psi (3.91 – 6.18 Mpa)
Compressive Strength after 28 days: ANSI A118.6: Clause 4.5	Min 3000 psi (20.62 Mpa)	570 – 900 psi (3.91 – 6.18 Mpa)
Tensile Strength after 28 days: ANSI A118.6:	Min 250 psi (1.71 Mpa)	570 – 900 psi (3.91 – 6.18 Mpa)

ISO / EN Data

Property / Test Method	Requirement	Typical Values
Abrasion resistance: ISO 13007 – 4: Clause 4.4; EN 12808 - 2	≤ 2000 mm^3	1000 – 1500 mm^3
Flexural strength under standard conditions: ISO 13007 – 4:Clause 4.1.3; EN 12808 - 3	≥ 2.5 N / mm^2	4.0 – 5.5 N / mm^2
Flexural strength under freeze and thaw cycles: ISO 13007 – 4:Clause 4.1.5; EN 12808 – 3	≥ 2.5 N / mm^2	3.5 – 5.0 N / mm^2
Compressive Strength under standard conditions: ISO 13007 – 4: Clause 4.1.4; EN 12808 – 4	≥ 15 N / mm^2	21 – 22 N / mm^2
Compressive Strength under freeze & thaw cycles: ISO 13007 – 4: Clause 4.1.5; EN 12808 – 4	≥ 15 N / mm^2	20 – 22 N / mm^2
Shrinkage: ISO 13007 – 4: Clause 4.3 : EN 12808 – 4	< 3mm / m	1.9 – 2.3 mm /m
Water Absorption after 30 Minutes: ISO 13007 – 4: Clause 4.2; EN 12808 – 5	≤5.0 g	2.0 – 2.5 g
Water Absorption after 240 Minutes: ISO 13007 – 4: Clause 4.2; EN 12808 – 5	≤10 g	4.0 – 6.0 g

Note: Exercise caution when cleaning soft-glazed tiles or polished stones.

Shelf Life

Factory sealed packs maintain first-quality performance for 18 months, and 9 months for bagged product, when stored in a dry area off the ground.
High humidity can reduce the shelf life of bagged product.

Limitations :

Consult Technical Services for specific recommendations on exterior grouting.
For industrial environments exposed to strong food/mineral acids or elevated temperatures, use Velwiin Industrial Epoxy Grout.
Protect from strong acidic cleaners during service; acids may neutralize cement grouts causing colour variation, cracking or powdering.
Not recommended for soft, polished marble or delicate glazed tiles.
Adhesives, mortars and grouts are not substitutes for waterproofing membranes. When waterproofing is required, use Velwiin waterproofing membrane systems.

Maintenance :

Velwiin cementitious and epoxy grout systems require routine cleaning using neutral-pH cleaners or approved Velwiin cleaning solutions.
All other Velwiin installation materials require no maintenance beyond proper installation.
Performance and longevity depend on correct installation and periodic maintenance of the finished surface.

CUSTOMER CARE

VELWIIN
Plot No.17, Survey No.546,
Laxmi Industrial Estate, Khokhara Hanuman Road
Near Laxmi Kata, Bela Rangpar, Morbi, Gujarat, 363642
Phone No - +91 99097 75135
Email - velwiinchemicals@gmail.com
Website - www.velwiin.com