



HYDA CON
Innovative chemical solutions

Technical Data Sheet

HYDAGROUT 100 Polymer Based Unsanded Grout

ABOUT HYDAGROUT 100

HYDAGROUT 100 is a high-performance, polymer-based unsanded cement grout specially formulated for interior and exterior floor and wall tile joints with a width of 1mm to 3mm. Offering excellent workability, colour consistency, and durability, it is an ideal solution for residential, commercial, and institutional tiling projects.

Engineered for long-term performance, **HYDAGROUT 100** delivers weather resistance, non-shrink, and crack-free joints. It complies with **ANSI A118.6**, **EN 13888**, and **ISO 13007-4 (CG1)** standards, ensuring high bonding strength and excellent adhesion to a wide range of surfaces.

HYDAGROUT 100 can be mixed with either clean potable water or HYDAADMIX 141 to enhance its properties such as colour retention, water resistance, and flexibility. It is easy to apply, clean, and maintain, making it a preferred choice for both professionals and DIY users.

SURFACE APPLICATION MATERIALS

- | | |
|--|--|
|  Ceramic Tiles |  Vitrified Tiles |
|  Glass Mosaic Tiles |  Granite & Marble |
|  Engineered Stones (Agglomerates) |  Precast Terrazzo Tiles |
|  Bricks | |

APPLICATION AREAS

- | | |
|---|--|
|  Floor & Wall Joints (Interior and Exterior) |  Residential & Commercial Tile Installations |
|  Terraces, Balconies, Podiums |  Dry & Wet Areas (Bathrooms, Spas, Pools) |
|  Tile-on-Tile Renovation Projects |  Institutional and General Floor/Wall Installations |

PRODUCT HIGHLIGHTS

- ❖ **WEATHER RESISTANT** – Engineered to perform in both interior and exterior environments, **HYDAGROUT 100** offers exceptional resistance to weather-related degradation, ensuring durability in exposed conditions.
- ❖ **COLOUR-FAST** – The advanced formulation preserves the grout's original shade and finish, resisting fading or discoloration over time even when exposed to light, moisture, or cleaning agents.
- ❖ **EASY TO APPLY & CLEAN** – With a smooth and workable consistency, **HYDAGROUT 100** allows for easy

application across joints and effortless clean-up, making it user-friendly for both professionals and DIY users.

❖ **NON-CRACKING & NON-SHRINK** – Designed to accommodate minor substrate movements, the grout maintains structural integrity by preventing shrinkage and cracking, thereby enhancing the longevity of the installation.

❖ **SHOCK & WATER RESISTANT** – Suitable for wet zones and high-traffic areas, it resists water penetration and physical impacts, offering long-term protection in bathrooms, kitchens, and other moisture-prone spaces.

❖ **STANDARDS COMPLIANT** – **HYDAGROUT 100** is formulated in compliance with globally recognized standards including ANSI A118.6, EN 13888, and ISO 13007-4 (CG1), ensuring reliable performance and quality assurance in every application.

TECHNICAL DETAILS

ANSI DATA

PROPERTY	TEST METHOD	REQUIREMENT	HYDAGROUT 100 VALUES
MIXED WITH WATER			
Linear Shrinkage after 27 days	ANSI A118.6 – Cl. 4.3	Max 0.30%	0.20% – 0.25%
Water Absorption after 27 days	ANSI A118.6 – Cl. 4.4	Max 18%	14% – 17%
Compressive Strength after 1 day	ANSI A118.6 – Cl. 4.5	Min 500 psi (3.43 MPa)	522 – 872 psi (3.60 – 6.01 MPa)
Compressive Strength after 28 days	ANSI A118.6 – Cl. 4.5	Min 3000 psi (20.62 MPa)	3052 – 3202 psi (21.03 – 22.07 MPa)
Tensile Strength after 28 days	ANSI A118.6 – Cl. 4.6	Min 250 psi (1.71 MPa)	272 – 402 psi (1.88 – 2.77 MPa)
Flexural Strength after 28 days	ANSI A118.6 – Cl. 4.7	Min 500 psi (3.43 MPa)	552 – 602 psi (3.81 – 4.15 MPa)
MIXED WITH HYDAADMIX 141			
Linear Shrinkage after 27 days	ANSI A118.6 – Cl. 4.3	Max 0.30%	0.20% – 0.25%
Water Absorption after 27 days	ANSI A118.6 – Cl. 4.4	Max 18%	12% – 15%
Compressive Strength after 1 day	ANSI A118.6 – Cl. 4.5	Min 500 psi (3.43 MPa)	572 – 902 psi (3.94 – 6.22 MPa)
Compressive Strength after 28 days	ANSI A118.6 – Cl. 4.5	Min 3000 psi (20.62 MPa)	3102 – 3202 psi (21.39 – 22.07 MPa)
Tensile Strength after 28 days	ANSI A118.6 – Cl. 4.6	Min 250 psi (1.71 MPa)	352 – 402 psi (21.39 – 22.07 MPa)
Flexural Strength after 28 days	ANSI A118.6 – Cl. 4.7	Min 500 psi (3.43 MPa)	602 – 802 psi (4.15 – 5.53 MPa)

EN / ISO DATA

PROPERTY	TEST METHOD	REQUIREMENT	HYDAGROUT 100 VALUES
MIXED WITH WATER			
Abrasion Resistance	ISO 13007 – 4: Cl. 4.4; EN 12808 – 2	$\leq 2000 \text{ mm}^3$	1355 – 1705 mm^3
Flexural Strength under standard conditions	ISO 13007 – 4: Cl. 4.1.3; EN 12808 – 3	$\geq 2.5 \text{ N / mm}^2$	4.0 – 4.4 N / mm^2
Flexural Strength under freeze-thaw cycles	ISO 13007 – 4: Cl. 4.1.5; EN 12808 – 3	$\geq 2.5 \text{ N / mm}^2$	4.0 – 4.4 N / mm^2
Compressive Strength under standard conditions	ISO 13007 – 4: Cl. 4.1.4; EN 12808 – 4	$\geq 15 \text{ N / mm}^2$	26 – 27 N / mm^2
Compressive Strength under freeze-thaw cycles	ISO 13007 – 4: Cl. 4.1.5; EN 12808 – 4	$\geq 15 \text{ N / mm}^2$	25 – 27 N / mm^2
Shrinkage	ISO 13007 – 4: Cl. 4.3; EN 12808 – 4	$< 3 \text{ mm / m}$	2.4 – 2.8 mm / m
Water Absorption after 30 Minutes	ISO 13007 – 4: Cl. 4.2; EN 12808 – 5	$\leq 5.0 \text{ g}$	3.0 – 3.5 g
Water Absorption after 240 Minutes	ISO 13007 – 4: Cl. 4.2; EN 12808 – 5	$\leq 10 \text{ g}$	4.5 – 8.5 g
MIXED WITH HYDAADMIX 141			
Abrasion Resistance	ISO 13007 – 4: Cl. 4.4; EN 12808 – 2	$\leq 2000 \text{ mm}^3$	1005 – 1505 mm^3
Flexural Strength under standard conditions	ISO 13007 – 4: Cl. 4.1.3; EN 12808 – 3	$\geq 2.5 \text{ N / mm}^2$	4.0 – 5.5 N / mm^2
Flexural Strength under freeze-thaw cycles	ISO 13007 – 4: Cl. 4.1.5; EN 12808 – 3	$\geq 2.5 \text{ N / mm}^2$	4.0 – 5.4 N / mm^2
Compressive Strength under standard conditions	ISO 13007 – 4: Cl. 4.1.4; EN 12808 – 4	$\geq 15 \text{ N / mm}^2$	22 – 23 N / mm^2
Compressive Strength under freeze-thaw cycles	ISO 13007 – 4: Cl. 4.1.5; EN 12808 – 4	$\geq 15 \text{ N / mm}^2$	21 – 23 N / mm^2
Shrinkage	ISO 13007 – 4: Cl. 4.3; EN 12808 – 4	$< 3 \text{ mm / m}$	2.0 – 2.4 mm / m
Water Absorption after 30 Minutes	ISO 13007 – 4: Cl. 4.2; EN 12808 – 5	$\leq 5.0 \text{ g}$	2.2 – 2.7 g
Water Absorption after 240 Minutes	ISO 13007 – 4: Cl. 4.2; EN 12808 – 5	$\leq 10 \text{ g}$	4.2 – 6.2 g

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION GUIDELINES

- CLEAN & STABLE SURFACE** – Ensure the surface is free from dust, grease, oil, loose particles, or any contaminants that may affect grout adhesion and performance. The substrate should be structurally sound and thoroughly cleaned before application.

2. **EVEN & LEVEL BASE** – The surface must be level and smooth, with no undulations greater than 6 mm over a 3-meter span. This ensures even grout distribution and uniform joint filling.
3. **DRY & MOISTURE-CONTROLLED** – Make sure the substrate is dry and not affected by rising dampness or moisture. Moisture-sensitive substrates must be tested and appropriately protected to avoid efflorescence or discoloration.
4. **PRE-WET IF NECESSARY** – On very dry or absorbent surfaces like natural stone or precast terrazzo, lightly dampen the surface before grouting. Let excess water evaporate fully to prevent dilution of the grout mix.
5. **CURE NEW CONCRETE** – Allow new concrete surfaces to cure for a minimum of 28 days before applying grout to ensure proper bonding and prevent surface cracking.
6. **PRESERVE MOVEMENT JOINTS** – Follow standard guidelines for placing expansion and movement joints. These joints must be filled with flexible sealants and must not be covered with **HYDAGROUT 100**.

HOW TO MIX HYDAGROUT 100

- **MIXING WITH WATER** – For each 1 kg of **HYDAGROUT 100** powder, use approximately 3.30 to 3.70 ml of clean, potable water. Adjust quantity depending on tile absorption and ambient conditions.
- **MIXING WITH ADMIX** – For improved flexibility, water resistance, and colour retention, replace water with HYDAADMIX 141. Stir admix thoroughly before use and follow the same powder-to-liquid ratio.
- **MIXING METHOD** – Add powder slowly to water or admix in a clean container. Mix manually or with a slow-speed drill until a smooth, lump-free, paste-like consistency is obtained.
- **READY FOR USE** – Use the grout mix within 60 minutes (pot life). Do not retemper or add more liquid after the mix begins to stiffen.

CLEANING

- **PRIMARY CLEANING** – Remove excess grout from tile surface using the edge of a rubber grout float. Hold the float at a 90° angle and move diagonally across joints to avoid pulling grout from joints.
- **SECONDARY CLEANING** – After grout firms slightly, clean remaining haze with a damp (not wet) sponge or towel, working diagonally across joints. For polished tiles or stone, use minimal pressure and water to avoid surface scratching.
- **FINAL POLISHING** – Once grout is fully dry, use a coarse nylon pad or dry cloth to buff the surface and restore the tile shine. Avoid acidic or harsh cleaners that can degrade cement grout.

STEP-BY-STEP TILE APPLICATION GUIDE

1. SURFACE PREPARATION

- Clean all grout joints and tile surfaces thoroughly to remove dust, debris, or dirt.
- Do not use acid cleaners before grouting. If acid was used, flush the area thoroughly with clean water to remove residues.
- Lightly dampen tile surfaces with a sponge before application.
- Ensure substrate temperature is between 16°C and 32°C (60°F – 90°F) before starting.

2. TILE PLACEMENT

- Firmly place tiles over the prepared adhesive bed, ensuring uniform contact and alignment.
- Use spacers or appropriate tools to maintain consistent joint widths (1–3 mm).
- Avoid tile lippage or uneven surfaces for best grout results.

3. ACHIEVING FULL ADHESION

- Mix **HYDAGROUT 100** powder with clean water or HYDAADMIX as recommended (approx. 3.75L for 10 kg grout).
- Stir to a smooth, stiff consistency using a slow-speed mixer or by hand.
- Spread grout diagonally across the joints using a rubber float, pressing firmly to fill completely.
- Avoid bridging; ensure grout fills the full depth of each joint.
- For flush joints, a dry sprinkle of grout powder may be used over joints and buffed in.

4. SPACING & CLEANING

- Maintain even joint spacing for uniform grout lines.
- Immediately remove excess grout from tile surfaces using the edge of the float held at a 45° angle.
- After initial set, clean the surface with a damp sponge or towel, working diagonally across joints.
- Perform final cleaning with a coarse nylon pad or cloth using minimal water once grout is firm.
- Avoid polishing soft glazed tiles or polished stone harshly.

5. SPECIAL CONSIDERATIONS

- Protect grouted areas from direct sunlight, rain, and early foot traffic for at least 24 hours.
- Movement joints and periphery joints should be provided and filled with flexible sealants.
- Not recommended for soft, polished marble or highly absorbent tiles without prior testing.
- Avoid strong acids and harsh cleaners for at least 10 days post-application.
- For increased flexibility and colour retention, replace water with HYDAADMIX.

PRO TIPS & PRECAUTIONS

- ✓ Store HYDAGROUT 100 in a dry place. Shelf life is 2 years (sealed) and 12 months for bags in dry conditions.
- ✓ Do not add cement or sand to the grout. Use only as directed with recommended admix or clean water.
- ✓ Always mix in the correct order – first add liquid, then slowly add powder while stirring.
- ✓ Only apply to dry, cured surfaces. Surface temperatures should be within 16°C – 32°C.
- ✓ Avoid filling joints wider than 5 mm with this product; it's designed for 1–5 mm widths.
- ✓ For highly absorbent or natural stone tiles, conduct a sample test area to check for colour ingress or staining.
- ✓ Avoid acidic cleaners post-installation. If used prior to grouting, rinse joints thoroughly.
- ✓ Use only neutral pH cleaners like HYDACLEAN series during maintenance.
- ✓ For walls above 3 meters, provide additional mechanical support if required.

- ✓ Allow 10 days for full chemical resistance before using aggressive cleaners.
- ✓ **HYDAGROUT 100** is not a waterproof membrane. For waterproofing needs, use approved membranes like HYDAWET WP 11 prior to tiling.

PRODUCT SPECIFICATIONS & STORAGE GUIDELINES

AVAILABLE PACKAGING

- 500 grams
- 1.0 kg

COLOUR OPTIONS

Available in a wide range of shades. Refer to the **HYDAGROUT 100** colour chart to select the desired grout colour.

SHELF LIFE

- 24 months (2 years) from the date of manufacture for factory-sealed packs
- 12 months for bagged product when stored off the ground in a dry area

Note: High humidity may reduce shelf life of the bagged product.

STORAGE LIFE:

- Store in a cool, dry place between 10°C and 35°C
- Keep bags tightly sealed when not in use
- Discard if packaging is damaged or grout has hardened
- Avoid exposure to:
 1. Direct sunlight
 2. High humidity or moisture
 3. Extreme temperatures (<5°C or >35°C)

GROUTING INSTRUCTIONS

1. WAITING TIME:

Begin grouting after 24 hours of tile installation.

2. RECOMMENDED PRODUCTS:

- For enhanced performance, mix grout with clean water or **HYDAGROUT 100**
- Water demand depends on tile absorbency — approx. 3.30 to 3.70 ml per 1 kg grout

3. APPLICATION TIPS:

- Maintain uniform joint gaps between 1mm and 5mm for a clean and consistent finish
- Dampen tile surface lightly before application
- Apply using a firm rubber grout float and pack grout thoroughly into joints using diagonal strokes
- Avoid “bridging” – ensure grout fills the full depth of the joint

COVERAGE DETAILS

Coverage varies with tile size, joint width, joint depth, and surface texture.

FACTORS AFFECTING COVERAGE:

- Tile size and joint width
- Surface smoothness and porosity
- Application technique and tool used (e.g., caulking gun vs. grout float)
- Amount of filler powder added during mixing

SAFETY & APPLICATION GUIDELINES FOR HYDAGROUT 100

1. PERSONAL PROTECTION

- Wear protective gloves, clothing, and eye/face protection while handling.
- Keep out of reach of children at all times.
- For professional use only – not for consumer DIY applications.

2. EMERGENCY PROCEDURES

- **Skin Contact:** Wash immediately with plenty of clean water.
- **Eye Contact:** Rinse thoroughly with water for 15 minutes and seek medical attention.
- **Inhalation/Ingestion:** Seek immediate medical help if accidentally inhaled or ingested.

3. SURFACE PREPARATION

- Ensure joints are free from dirt, debris, and excess moisture.
- Avoid using acid-based tile cleaners before grouting. If used, rinse thoroughly with plenty of water.
- The tile surface must be clean, dry, and dust-free.
- Substrate temperature must be maintained between 16°C and 32°C (60°F to 90°F).
- It is advisable to pre-test absorbent tiles and stones for possible colour ingress or staining.

4. INSTALLATION & PROTECTION

- Dampen the tile surface lightly before application.
- Apply grout using a firm rubber grout float, spreading diagonally to pack the joints fully.
- Avoid bridging – ensure joints are completely filled and flush.
- For enhanced finish, lightly sprinkle dry grout powder over joints immediately after grouting and buff with a soft cloth or burlap.
- **Initial Cleaning:** Remove excess grout with the edge of the float held at a 45° angle.
- **Secondary Cleaning:** Use a slightly damp sponge or towel, wiping diagonally across joints.
- **Final Cleaning:** Polish surface with a coarse cloth once grout joints are firm. Avoid over-wetting.
- Protect newly grouted areas from rain, water exposure, or heavy traffic for at least 24 hours.
- For exterior installations or water-submerged areas like pools, protect for 7 days and fill only after complete curing.

MAINTENANCE

- Clean regularly using neutral pH soap and water.
- For best results and longevity, use HYDACLEAN Series tile and grout cleaners.

- Avoid acidic or harsh cleaners that may degrade cement-based grouts.

PERFORMANCE LIMITATIONS

- Not suitable for highly polished marble or soft glazed tiles.
- Always incorporate proper movement joints to accommodate thermal and structural movements.
- **HYDAGROUT 100** is not a waterproofing agent – use appropriate waterproof membranes if required.
- Light-coloured grouts may be prone to discolouration under prolonged UV exposure.
- Cement-based grout achieves maximum stain and water resistance 10 days after installation – protect accordingly.

End of TDS