

Technical Data Sheet

Ref. C-St-07- 010520-02

<p>In Compliance With EN norms – EN C1 E</p>	<p>Calcibond Smart is an Eco friendly, polymer modified, light weight, based on high quality mineral, ready to use adhesive for fixing of all kind of absorbent ceramic, porcelain, glazed and other tiles. Suitable for internal & external areas.</p>
<p>Main application Adhesive for fixing of all type of absorbent ceramic & porcelain tiles.</p>	

Technical advantage of Calcibond Smart over normal adhesive

- Guaranteed fixing for all type and size of absorbent ceramic tiles & mosaic.
- Absorbent porcelain tiles of big size on wall can be fixed with ease in area such as bathroom, lobby etc.
- Exceed strength of class C1 E adhesive as per European norms.
- Semi-tixo properties for ease of application with absorbent tiles on floor and wall.
- Polymer modified for improved working.
- High speed of work with ease of application.
- No water curing required.
- High coverages with minimum thickness of 3 mm. and maximum upto 10mm.
- No need to mix any extra cement or sand. Ready to use.
- Very high mineral content.
- Very low VOC and suitable for green building.
- Light weight

Suitable areas

- Internal & external wall & floor.
- Residential & commercial buildings.

Suitable surfaces

- Fully dry and sound new or old traditional plaster.
- New or old absorbent IPS or PCC floors which are sound and stable.
- Absorbent concrete.
- Screed made with Zeorich Base, Zeorich Base Rapid or similar kind.

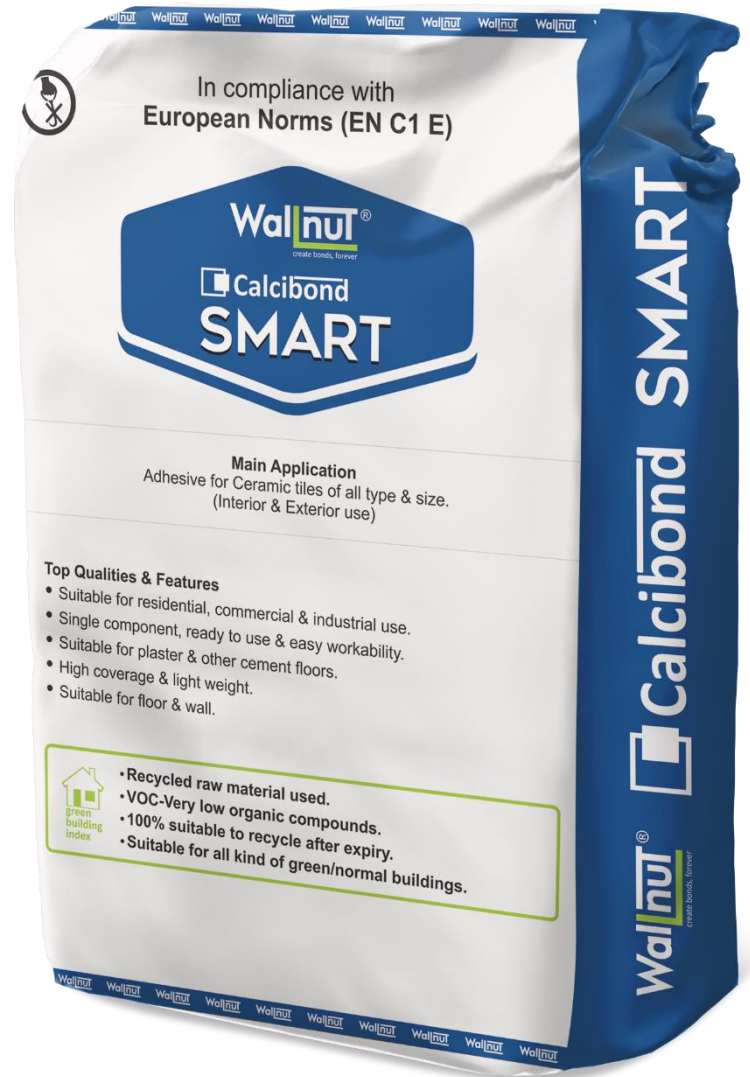
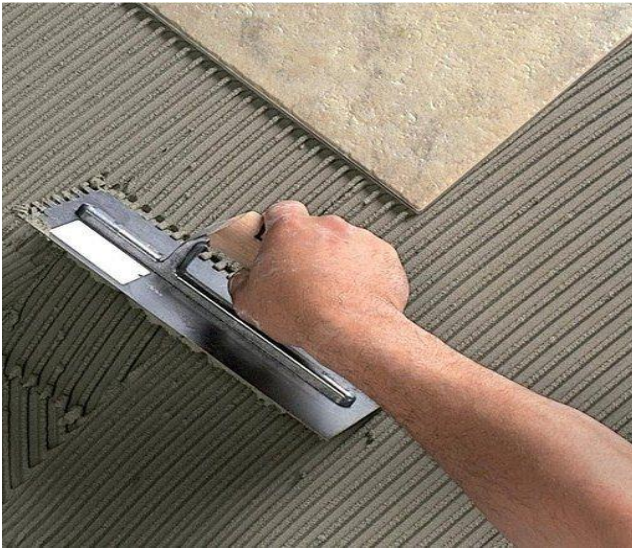
Suitable covering material

- All kind of absorbent ceramic & porcelain tiles.
- Large format absorbent tiles on wall.
- Ceramic mosaic.

Product not to be used

- On non-absorbent concrete surfaces (Use Calcibond Secure adhesive).
- On metal, wood, rubber & on cement board. (Use Calcibond Ultima).
- To fix stone of all kind which are sensitive to moisture. (Use Calcibond Ultima)
- To fix stone which are soft and brittle in nature. (Use Calcibond Advance or Calcibond Ultima)
- To fix recomposed stone. (Use Calcibond Advance or Calcibond Ultima).
- Over expansion joint or in area with extreme movement in structure.
- More than 10 mm. and less than 3 mm. of thickness.

How to Use



Important tools for application:

- Electric low speed mixing stirrer.
- Walnut notch trowel of 6x6 mm. size & 10x10 mm.
- Auto spirit level
- Other mixing & finishing tools such as mixing trowel, bucket, brush, broom, measuring tape etc.

Cleaning of tools:

- While still the material is fresh, all the tools can be cleaned with normal water. Once material is hardened, the material can be removed only by mechanical means.

Surface Preparation

- Ensure that plaster / screed surface is sound, clean and free from all foreign material such as oil, grease, dust etc.
- If surface is uneven of more than 10 mm. than first do the levelling by using correct levelling material in order to avoid using excess thickness of adhesive or apply first thin coat of same adhesive to level the surface and wait for 24 hours.
- Onto dry clean surface, splash the enough water and let it surface dry to improve the workability of adhesive.
- In case working in external environment, avoid direct sun exposure to surface and to finishing material. Let cool the surface before starting application. Hot surface may compromise final performance.
- If surface area are larger, provide movement joint every 3 meter.
- Follow concrete expansion joint and connection joint as per standard.

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Mixing:

- Mix Calcibond Smart 20 kg. grey bag with approx. 5 lt. and white with 5.25 lt. of clean water. Use slow speed electric stirrer to have desired results. Manual mixing can compromise performance of adhesive.
- Adjust the water quantity as per ambient temperature and dryness of surface. The final mix must be workable paste.

How to apply:

- Spread the adhesive in desired thickness from 3 to 10 mm. onto cement surface using proper notch trowel.
- Once adhesive is applied, fix the tiles or stone onto adhesive before skin formation and press firmly. In case tiles or stone are of big size, also apply the adhesive layer at the back of tiles.
- Leave the space between tiles to have proper grouting and to accommodate surface movement.
- Leave the tiles for 24 hours to bond well and then follow the grouting process.

Product & Working Data

Product appearance	: Grey and white colour powder
Packing	: 20 & 40 Kg. moisture proof bag
Shelf life	: 12 months from the date of manufacturing.
Water ratio	: Approx. 5 lt. for grey and 5.25 lt. for white per 20 kg. bag
Pot life	: > 2 hours
Thickness	: Minimum 3 to 10 mm.
Open Time	: ≥ 30 minute
Adjustability	: > 30 minute
Initial setting	: 6 to 8 hours.
Final setting	: 24 hours.
Walking on floor	: After 24 hours.
Grouting	: After 24 hours.
Normal use of surface	: After 2 weeks.
Full strength of adhesive	: At 28 days.
Coverage	: Approx. 60 sq. ft. / bag of 20 kg. Using 3 mm. thick or 1.2 kg./ m ² / mm.
Application temperature	: + 5° C. to + 35° C.

(Data @ 23°C. & 50% humidity)

Technical Performances

In compliance with EN 12004: EN C1 E standard for class 1 adhesive

Tensile adhesion	: ≥ 1.0 N / mm ²	: As per EN 1348
Adhesion after heat cycle	: ≥ 0.65 N / mm ²	: As per EN 1348
Adhesion after water immersion	: ≥ 0.8 N / mm ²	: As per EN 1348
Adhesion after freeze / thaw cycle	: ≥ 0.64 N / mm ²	: As per EN 1348

(Final results @ 28 days. 23° C. & 50% humidity)

In compliance with IS 15477-2019: for Type 2 Adhesive

Tensile Adhesion (Dry condition)	: ≥ 1 N/mm ²
Shear Adhesion (Dry Condition)	: ≥ 1.25 N/mm ²

(Final results @ 28 days. 27° C. & 65% humidity)

- Final resistance to temperature after 28 days or full cure: - 30 to + 80° C.
- The final results may vary based on temperature and humidity. Freeze thaw cycles are having different curing cycles.

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Important instructions

- Once bags are open, entire material must be consumed within 24 hours. Store the bags in safe environment.
- In case of very weak cement surface, please ensure that proper strength or correction are done before use of adhesive.
- If temperature is more than 35° C., than avoid using the products under direct sun.
- In case temperature is cold and below 5° C., the initial and final setting may affect.
- Expansion & connection joint must be followed of concrete and all other elements of concrete structure.
- For any structure related issue, follow local code and appropriate consultant guidelines.
- In case the performance of Walnut products not as per technical data mentioned, please call Walnut technical helpline.

Walnut Green Building Index

Walnut range of products are most eco-friendly and suitable to use in all kind of buildings including certified green. Apart from using best of international raw material for best performance, Walnut procure the major raw material locally to safeguard environment.



- **Recycled raw material used.**
- **VOC (Very low Organic Compounds).**
- **100% suitable to recycle after expiry.**
- **Suitable for all kind of green and normal buildings.**

Walnut Quality & Safety Assurance

Products supplied are safe to use by any worker at site. However proper tools and safety measures must be in place for prolong working. The gloves, safety glasses and other protection measure must be followed as per local regulation.



Declaration

All the above information and results are provided based on Walnut internal quality test. Customer must check before using the product about performance and final expected results. Walnut cannot be held responsible for any damage of whatsoever nature at site.

Technical Help

Walnut Building Solutions India Private Limited | CIN : U36999MH2017PTC289638

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