Technical Data Sheet

In Compliance With	Calcibond Secure is an eco-friendly, light weight high polymer modified, mineral based ready to use adhesive formulated with high quality raw material and carbonates for fixing all type and size of vitrified & ceramic tiles and glass mosaic in interior and exterior areas. It is also suitable for fixing Natural stone tiles on floor and wall in interior area. Suitable for internal & external areas.
Norm : EN C2 TE & IS Type 3 T	
Main application	
Adhesive for fixing all type of vitrified tiles, stone tiles on floor & on wall.	

In Compliance with **EN C2 TE** EUROPEAN NORMS

In Compliance with **IS TYPE 3 T** INDIAN STANDARDS

Technical advantage of Calcibond Secure over normal adhesive

- Conformity to Class 2 adhesive as per European Norms (EN) and Type 3 adhesive as per Indian Standard (IS) 15477: 2019
- Highly thixotropic (non-seg) for fixing big size vitrified and stone tiles on wall & floor.
- High Polymer modified and made with high grip technology.
- Guaranteed fixing of vitrified tiles in interior & exterior.
- Also suitable for fixing natural stone tiles upto 12 mm. thick on internal floors.
- Exceed strength of Class 2 adhesive as per EN and Type 3 as per IS norms.
- High coverage and high workability among Type 3 adhesive available across industry.
- Suitable for renovation and tiles over tile work.
- No water curing required.
- Saving of time & labor.
- No need to mix any extra cement.
- No need to soak absorbent tiles into water prior to fixing.
- Very low VOC and suitable for green building.

Suitable areas

- Internal & external wall & floor.
- Residential & commercial buildings.
- Public infrastructure projects such as government buildings & utility public spaces.
- Industrial facility.

Suitable surfaces

- Fully dry and sound new or old traditional plaster.
- New or old absorbent IPS or PCC floors which are sound and stable.
- Screed made with Zeorich Base, Zeorich Base Rapid or similar kind.
- Completely cured stable concrete.
- Machine cut concrete block and fly ash block.
- Existing ceramic, vitrified and cement mosaic surfaces.
- Gypsum based plaster, screeds and AAC block panel (Autoclaved aerated concrete). Apply primer before use.

Suitable covering material

- All type of ceramic & vitrified tiles.
- Large format tiles in interior walls & floor.
- Ceramic and vitrified glass mosaic of daily use.
- Stable Indian marble stone tiles which is not sensitive to moisture.

Product not to be used

- On metal, wood, rubber & on cement board. Use Calcibond Ultima.
- Stone, which are sensitive to moisture and need high performance adhesive. (Use Calcibond Ultima).
- To fix stone which are soft and brittle in nature. (Use Calcibond Advance or Calcibond Ultima).
- To fix resin based recomposed stone. (Use Calcibond Advance or Calcibond Ultima).
- Over expansion joint or in area with extreme movement in structure.
- More than 15 mm. of thickness.
- For external facades on greater heights and especially with large format slabs. (use Calcibond Advance)

Technical Data Sheet

How to Use

Important tools for application:
- Electric low speed mixing stirrer.
- Wallnut 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 15 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 is larger, provide movement joint every 3 meters.
- Follow concrete expansion joint and connection joint as per standard.

Mixing:
- Mix Calcibond Secure 20 kg. grey or white product bag with approx. 4.8 to 5.25 lt. of clean water. Use slow speed electric stirrer to have desire 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 desire thickness from 2 to 15 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. 4.8 to 5.25 lt. for grey and white per 20 kg. bag
Pot life	: > 2 hours
Vertical slip	: < 0.5 mm. (As per European norms).
Thickness	: Minimum 2 to 15 mm.
Open Time	: ≥ 30 minute
Adjustability	: > 30 minute
Initial setting	: 6 to 8 hours.
Final setting	: 24 hours.
Foot traffic	: 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. / m2 / mm.
Application temperature	: + 5° C. to + 35° C.

(Data @ 23° C. & 50% humidity)

Technical Data Sheet

Technical Performances

<table>
<tr><td colspan="2">In compliance with (Indian Standard) IS 15477-2019: for Type 3 Tile Adhesive</td></tr>
<tr><td>Tensile Adhesion (Dry condition)</td><td>: ≥ 1.5 to 1.75 N/mm2</td></tr>
<tr><td>Tensile adhesion strength wet condition</td><td>: ≥ 1.5 N/mm2</td></tr>
<tr><td colspan="2">Sheer Adhesion:</td></tr>
<tr><td>Dry Condition</td><td>: ≥ 1.5 N/mm2</td></tr>
<tr><td>Heat Ageing Condition</td><td>: ≥ 1 N/mm2</td></tr>
<tr><td>Wet Condition</td><td>: ≥ 1 N/mm2</td></tr>
<tr><td colspan="2" align="right">(Final results @ 28 days. 27° C. & 65% humidity)</td></tr>
</table>

• Final resistance to temperature after 28 days or full cure: - 30 to + 70° C.
• The final results at test site may vary based on temperature and humidity & surface condition.

Technical Performances

<table>
<tr><td colspan="3">In compliance with (European Norms) EN 1348 – Class C2 Tile Adhesive test requirement:</td></tr>
<tr><td>Initial adhesion (After 28 days)</td><td>: ≥ 1.25 to 1.5 N / mm2   }</td><td></td></tr>
<tr><td>Adhesion after heat cycle</td><td>: ≥ 1 N / mm2   }</td><td>Exceed all results than EN Norms.</td></tr>
<tr><td>Adhesion after water immersion</td><td>: ≥ 1 N / mm2   }</td><td></td></tr>
<tr><td>Adhesion after freeze / thaw cycle</td><td>: ≥ 1 N / mm2   }</td><td></td></tr>
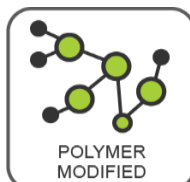<tr><td colspan="3" align="right">(Final results @ 28 days. 23° C. & 50% humidity)</td></tr>
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• Final resistance to temperature after 28 days or full cure: - 30 to + 70° C.
• The final results at test site may vary based on temperature and humidity & surface condition.

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 Wallnut products not as per technical data mentioned, please call Wallnut technical helpline.

Wallnut Exclusive Technology

Fixing Material

Tile & Stone Adhesives	AAC Block / Fly Ash bricks	Ceramic / Clay & Glazed tiles	Vitrified Tiles upto 2x2'	Vitrified Tiles Slab	Ceramic Mosaic	Glass Mosaic	Marble & Granite tiles	Marble Granite Slab	Enginnered Quartz Stone
Lite Tile	X	✓	X	X	X	X	X	X	X
Lite Tile Plus	X	✓	✓	X	X	X	X	X	X
Lite Block	✓	✓	X	X	X	X	X	X	X
Lite Floor	X	✓	✓	✓	X	X	✓	✓	X
Calcibond Smart	✓	✓	✓	✓	✓	X	✓	✓**	X
Calcibond Smart Plus	✓	✓	✓	✓	✓	X	✓	✓**	X
Calcibond Secure	✓	✓	✓	✓	✓	✓	✓	✓**	X
Calcibond Flex	✓	✓	✓	✓	✓	✓	✓	✓**	X
Calcibond Advance	✓	✓	✓	✓	✓	✓	✓	✓	✓**
Calcibond Ultima	✓	✓	✓	✓	✓	✓	✓	✓	✓

Strike with star (**) mark it is recommended to use Wallnut Calcibond Latex as replacement of water in part or full for best resutls. For further detail and if any fixing material not covered above or doubt, please consult Wallnut Technical Department before using the product.

Application Surfaces

Tile & Stone Adhesives	Plaster	Cement Screed / PCC	Traditional Concrete	Mivan / Precast Concrete	Existing Tiles	Wood	Metal	Dry Wall	Rubber floor
Lite Tile	✓	✓	X	X	X	X	X	X	X
Lite Tile Plus	✓	✓	X	X	X	X	X	X	X
Lite Block	✓	✓	X	X	X	X	X	X	X
Lite Floor	✓	✓	X	X	X	X	X	X	X
Calcibond Smart	✓	✓	✓	✓**	✓**	X	X	X	X
Calcibond Smart Plus	✓	✓	✓	✓	✓	X	X	X	X
Calcibond Secure	✓	✓	✓	✓	✓	X	X	X	X
Calcibond Flex	✓	✓	✓	✓	✓	X	X	X	X
Calcibond Advance	✓	✓	✓	✓	✓	X	X	X	X
Calcibond Ultima	✓	✓	✓	✓	✓	✓	✓	✓	✓

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Application Areas

Tile & Stone Adhesives	Internal Floor	Internal Wall	External floor	External Wall upto 10 feet	External Building Façade	Lift area / Lobby	Roof / Terrece	Balcony	Swimming Pool
Lite Tile	✓	✓	X	X	X	X	X	X	X
Lite Tile Plus	✓	✓	X	X	X	X	X	X	X
Lite Block	X	✓	X	✓	X	X	X	X	X
Lite Floor	✓	X	✓	X	X	X	X	X	X
Calcibond Smart	✓	✓	✓	✓	✓**	✓**	X	✓	X
Calcibond Smart Plus	✓	✓	✓	✓	✓**	✓**	X	✓	X
Calcibond Secure	✓	✓	✓	✓	✓**	✓**	✓	✓	✓
Calcibond Flex	✓	✓	✓	✓	✓**	✓	✓	✓	✓
Calcibond Advance	✓	✓	✓	✓	✓	✓	✓	✓	✓
Calcibond Ultima	✓	✓	✓	✓	✓	✓	✓	✓	✓

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Wallnut Green Building Index

Wallnut 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, Wallnut procure the major raw material locally to safeguard environment.

LOW VOC LESS POLLUTION

RECYCLED RAW MATERIAL

Green Building Index
- Recycled raw material used.
- VOC-Very low organic compounds.
- 100% suitable to recycle after expiry.
- Suitable for all kind of green/normal buildings.

Wallnut 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.

WALLNUT SAFETY ASSURANCE

SHELF LIFE 1 YEARS FROM MFD

WALLNUT QUALITY ASSURANCE

Declaration

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

Technical Help

Wallnut Building Solutions India Private Limited | CIN: U36999MH2017PTC289638

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