

# Technical Data Sheet

Ref.: C-Lx-21-010621-01

<p><b>In Compliance With</b> EN, ANSI and IS norms</p>	<p>Walnut Calcibond latex is a unique Eco-friendly polymer liquid based on high quality flexible agent to provide excellent adhesion properties to calcibond cementitious adhesives. It can be added to Calcibond cement-based adhesive as replacement of water when tiles or stone to be fixed in condition such as high-rise building, seismic zone, vibration in surface, industrial application, public places such as airport, railway station, area under extreme heat or expose to direct sunlight and for under water application. Suitable for internal &amp; external areas.</p>
<p><b>Main application</b> Admix for Calcibond &amp; Lite range of cement-based adhesive to increase tensile &amp; shear strength significantly. It also imparts greater flexibility and improve transverse deformation of cementitious adhesive.</p>	

## Technical advantage of Calcibond Latex

- Guaranteed fixing of all type of tiles & natural stone including low thickness tile slab, mosaic etc.
- Best for high rise facade, external areas & for public infrastructure.
- Very high flexibility to accommodate surface movement including external temperature.
- Improves tensile and sheer adhesion of calcibond adhesive significantly.
- Improves transverse deformation (upto S1 & S2 category) with Calcibond cement-based adhesive.
- Impart greater flexibility for high performance in demanding areas to fix big size of tiles and stone.
- Exceeds IS 15477: 2019 type 3 and type 4 adhesive requirements.
- Fully thixotropic (Slip < 0.5mm.) for wall application and for big format of tile & stone.
- Very good ageing & long-life assurance of performance.
- High speed of work with ease of application.
- No water curing required.
- Best performance even at 2mm. thickness of use.
- Very low VOC (Low Volatile Organic Compound) and suitable for green building.

## Suitable areas

- Internal & external wall & floor including high rise facade.
- Residential & commercial buildings.
- Public infrastructure project including swimming pools and water tank.
- 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.
- Fully cure stable concrete of all type including machine cut concrete block and fly ash brick.
- Existing tiles or stone surfaces.
- Gypsum base plaster, screed or AAC block / Panel (Autoclaved Aerated concrete). Apply Zeorich primer before use.

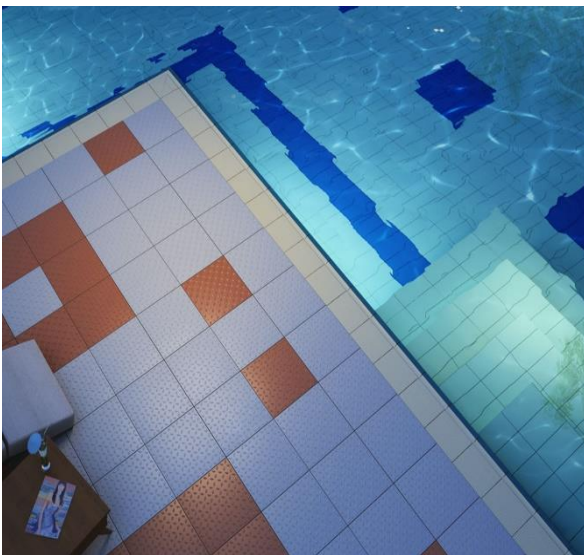
## Suitable covering material

- Large format tiles of all type including vitrified low thickness slab of 3mm. or more.
- All type & size of ceramic & vitrified tiles.
- All type & size of ceramic, vitrified & glass mosaic.
- All type of stable marble & granite including recomposed stone which are not sensitive to moisture.

## Product not to be used

- On metal, wood & rubber & other difficult substrate. Use Calcibond Ultima.
- To fix stone which are very sensitive to moisture. Use Calcibond Ultima.
- Dry walls which are very sensitive to moisture and have movement due to temperature. Use Calcibond Ultima.
- Over expansion joint or in area with extreme movement in structure.
- More than 15 mm. of thickness when mixed with adhesive.

## 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.

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## Surface Preparation

- Ensure that 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 is larger, provide movement joint every 3 meters. Follow concrete expansion joint and connection joint as per local standard.

## Mixing:

- Approx. 5 lt. or more of Calcibond latex liquid require to mix with any Calcibond cementitious adhesive of 20 kg. bag. Quantity of Calcibond Latex is depending on the type of adhesive used and final consistency needed.
- Use slow speed electric stirrer to have desire results. Manual mixing can compromise performance of adhesive.
- Calcibond Latex also can be diluted with water and ratio of dilution is depends on application and final strength needed.

## How to apply:

- Spread the workable adhesive paste in desire thickness as per recommendation onto the 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 or stone.
- Leave the spacer between tiles or stone to have proper grouting and to accommodate surface movement.
- Leave the tiles or stone to dry for 24 hours and then follow the grouting process.

## Special Note: Using Calcibond Latex as primer:

- Calcibond Latex can be used as a primer on all cement-based surfaces such as rigid concrete, dry walls etc. to improve the surface adhesion significantly of cement-based adhesive. Calcibond Latex can be applied with brush onto the surface and while it is still touch dry, adhesive should be applied and tiles or stone can be fixed.
- Similar way as mentioned above, Calcibond Latex can be applied at the back of big size vitrified tiles or stone which requires high adhesion and they can be fixed with suitable adhesive. When following tiles over existing glazed tiles application on vertical surface, primer coat can be applied to avoid slippages of adhesive and greater bonding.

## Product & Working Data

- Product appearance : White to off white liquid
- Packing : 1 Lt. | 5 Lt. & 20 Lt. drum.
- Shelf life : 12 months from the date of manufacturing.
- Mixing Ratio : Approx. 5 lt. or more for 20 kg. calcibond adhesive bag.

## Physical data when mixed with Calcibond Flex:

- Pot Life : > 2 hours.
- Thickness : Upto 15 mm.
- Open Time : > 30 minute.
- Adjustability : > 30 minute.
- Initial setting : 6 hours.
- Final setting : 24 hours.
- Grouting : After 24 hours.
- Normal use of surface : After 2 weeks.
- Full strength of adhesive : At 28 days.
- Coverage : As per adhesive coverage chart.
- Application temperature : + 5° C. to + 35° C.

(Data @ 23° C. & 50% humidity)

## Technical Performances

### Test data when mixed with Calcibond Smart or Smart Plus adhesive: (As per EN 1348)

	Smart + Latex pure	Smart + Latex diluted (1:1)
Initial tensile adhesion strength	: $\geq 2.0$ N / mm <sup>2</sup>	: $\geq 1.5$ N / mm <sup>2</sup>
Adhesion after heat cycle	: $\geq 2.0$ N / mm <sup>2</sup>	: $\geq 1.5$ N / mm <sup>2</sup>
Adhesion after water immersion	: $\geq 1.4$ N / mm <sup>2</sup>	: $\geq 1$ N / mm <sup>2</sup>
Adhesion after freeze / thaw cycle	: $\geq 1.5$ N / mm <sup>2</sup>	: $\geq 1.1$ N / mm <sup>2</sup>
Transverse deformation (EN 12002)	: $> 2.75$ mm.	: $< 2.5$ mm.
<b>Final Conformity (EN Norms 12004)</b>	<b>: C2 TE S1</b>	<b>: C2 TE</b>

### Test data when mixed with Calcibond Flex adhesive: (As per EN 1348)

	Flex + Latex pure	Flex + Latex diluted (1:1)
Initial tensile adhesion strength	: $\geq 2.5$ N / mm <sup>2</sup>	: $\geq 2$ N / mm <sup>2</sup>
Adhesion after heat cycle	: $\geq 2.5$ N / mm <sup>2</sup>	: $\geq 2$ N / mm <sup>2</sup>
Adhesion after water immersion	: $\geq 1.6$ N / mm <sup>2</sup>	: $\geq 1.25$ N / mm <sup>2</sup>
Adhesion after freeze / thaw cycle	: $\geq 1.7$ N / mm <sup>2</sup>	: $\geq 1.3$ N / mm <sup>2</sup>
Transverse deformation (EN 12002)	: $> 5$ mm. (S2)	: $< 5$ mm.
<b>Final Conformity (EN Norms 12004)</b>	<b>: C2 TE S2</b>	<b>: C2 TE S1</b>

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

## Walnut exclusive technology



## Important instructions

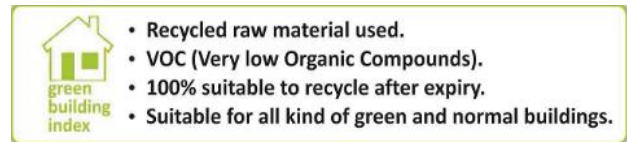
- Once container is open, entire material must be consumed within 24 hours. Store the container in safe environment.
- Shake well before use.
- In case of very weak surface, please ensure that proper strength or correction are done before start using.
- If temperature is more than 35° C., than avoid using the products under direct sun.
- In case temperature is cold and below 5° C., the initial and final setting may affect.
- While using in external temperature, open time may reduce significantly.
- 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 is not as per technical data mentioned, please call Walnut technical helpline.

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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.



## 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 safety glasses measure must regulation.



working. The gloves, and other protection be followed as per local

## 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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