

# TILE ADHESIVE SILVER

POLYMER MODIFIED CEMENTITIOUS TILE ADHESIVE **TYPE II 'T' / C1TE** FOR VITRIFIED AND CERAMIC TILES WITH NO VERTICAL SLIP AND EXTENDED OPEN TIME

## DESCRIPTION

**Tile Silver** is a polymer modified cementitious tile adhesive for fixing vitrified and ceramic tiles on floor and wall with no vertical slip. It can be used to fix small and medium sized ceramic and vitrified tiles on floor and walls. Indoor and outdoor use.

- Cement plaster
- Brick masonry
- Calcium sulphate screeds
- Existing tile and stones
- Gypsum fibre boards

\*Use Nerolac Perma Tile Bond as a primer for the application on calcium sulphate screeds and gypsum fibre boards.

## USES

- Bonding of ceramic, vitrified, and terracotta tiles on floor and walls.
- Tile on tile application.

## APPLICATION AREAS

- Indoor residential environment
- Dry and wet areas
- Domestic and commercial

## SUBSTRATES

- Concrete
- Masonry
- Cement mortar beds

## PRODUCT FEATURES

- Strong adhesion
- Can be used in wet areas
- Extended open tile
- Reduced vertical slip
- Easy to use
- Self-curing
- No hollow sound
- Stronger adhesion than conventional cement-based mortar
- Can be used for wet rooms, toilets, showers, kitchens and laundries

## PRODUCT INFORMATION

<b>Chemical base</b>	Portland cement, polymers, selected aggregates and additives
<b>Packaging</b>	20 Kg & 40 Kg
<b>Shelf life</b>	12 months from the date of manufacturing
<b>Storage conditions</b>	Product must be stored in original, unopened and undamaged sealed packaging in dry condition temperature between +5 °C to 35 °C
<b>Appearance</b>	Available in Grey and White colors
<b>Standard compliance</b>	Type II 'T' (IS 15477:2019) & C1TE* (EN 12004:2017)

\*Tensile adhesion strength test after freeze thaw cycles not concluded due to tropical climatic condition.

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## APPLICATION INFORMATION

Mixing ratio	Packing	Water: powder ratio by weight	Quantity of water per bag
	20 Kg	0.26-0.28	5.2-5.6 L
	40 Kg	0.26-0.28	10.4-11.2 L

Fresh mortar density	1.7 – 1.9 Kg/L
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**Consumption** Consumption is dependent on the substrate, surface profile, roughness, application technique, tile type, tile size and trowel notch size. (As a guide for a single adhesive layer)

Size of tiles	Bed thickness	Dry Powder Consumption
Small	3 mm	2.75 - 3.25 Kg/m <sup>2</sup>
Medium	4 mm	3.25 - 3.75 Kg/m <sup>2</sup>
Large	5 mm	4 - 4.50 Kg/m <sup>2</sup>

### Coverage

Pack	Area covered
20 Kg	5 – 6 m <sup>2</sup> at 3 mm thickness
40 Kg	10 – 12 m <sup>2</sup> at 3 mm thickness

Layer thickness	Min 3 mm – Max 12 mm
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Ambient air temperature	+5 °C - +45 °C
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Substrate temperature	+5 °C - +45 °C
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Maturing time	~5 minutes
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Pot life	~120 minutes (100 gm powders at +27 °C)
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Open time	15 – 20 minutes
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Adjustability time	20 – 25 minutes
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Applied product ready for use	Use	Waiting time
	Grouting Floor/walkable	24 – 36 hours
	Grouting walls	4 – 6 hours
	Full traffic	~14 days
	Water immersion	~21 days

Values determined at the laboratory conditions: 23 °C ± 2 °C, R.H. 50 % ± 5 %. Higher temperatures will reduce the indicated waiting times, lower temperatures increase them.

Protect form adverse weather conditions, such as extremely high or low (freezing) temperatures, rain, for at least 12-24 hours from application.

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## TECHNICAL INFORMATION

Requirements as per IS 15477:2019 -

TEST PARAMETERS	IS 15477:2019	RESULTS
Tensile Adhesion strength, after 28 days		
Dry condition	$\geq 1 \text{ N/mm}^2$	1 - 1.2 N/mm <sup>2</sup>
Wet condition	$\geq 1 \text{ N/mm}^2$	1 - 1.2 N/mm <sup>2</sup>
Shear adhesion strength		
Dry condition	$\geq 1.25 \text{ N/mm}^2$	1.25 - 1.30 N/mm <sup>2</sup>
Wet condition	$\geq 1 \text{ N/mm}^2$	1 - 1.1 N/mm <sup>2</sup>
Heat ageing	$\geq 1 \text{ N/mm}^2$	1.0 - 1.2 N/mm <sup>2</sup>
Slip resistance	$\leq 0.5 \text{ mm}$	$\leq 0.5 \text{ mm}$

Requirements as per EN 12004:2017 -

TEST PARAMETERS	EN 12004:2017	RESULTS
Tensile Adhesion strength, after 28 days		
Dry condition	$\geq 0.5 \text{ N/mm}^2$	0.5 - 1.0 N/mm <sup>2</sup>
Wet condition	$\geq 0.5 \text{ N/mm}^2$	0.5 - 1.0 N/mm <sup>2</sup>
Heat ageing	$\geq 0.5 \text{ N/mm}^2$	0.5 - 1.0 N/mm <sup>2</sup>
Tensile adhesion strength after freeze-thaw cycle	$\geq 0.5 \text{ N/mm}^2$	0.5 - 1.0 N/mm <sup>2</sup>
Extended open time, Tensile adhesion strength	$\geq 0.5 \text{ N/mm}^2$ after not less than 20 minutes	0.5 - 0.7 N/mm <sup>2</sup>
Slip resistance	$\leq 0.5 \text{ mm}$	$\leq 0.5 \text{ mm}$

\*Values determined at the laboratory conditions: 23 °C  $\pm$  2 °C, R.H. 50 %  $\pm$  5 %, results may vary based on site conditions, contact Kansai Nerolac Paints technical team for assistance.

## APPLICATION PROCESS

### SUBSTRATE PREPARATION

- The substrate must be levelled, cured, undamaged, compact, rigid and free from any deleterious material.
- Dampen the dry surface with water and excess water should be washed off.
- New concrete substrate should be 28 days old before application which will reduce linear shrinkage from tile fixing surface.
- Smooth surfaces should be roughened lightly to improve adhesion.
- For applications in hot climate or on absorbent substrates, thoroughly pre-dampen the surface immediately prior to product application. Avoid any ponding/standing water on the surface. Surface must not be damp to touch.
- If waterproofing layer required, cement based, and acrylic based waterproofing products from Nerolac Perma range must be applied to the substrate before tiling.

## MIXING

- Pour the recommended amount of clean cold water into a suitable, clean mixing container.
- Slowly add Tile Gold powder to the water and then mix thoroughly using a low speed (<500 rpm) drill mixer until the material is fully mixed and lump free. Avoid entraining air into the mix by over mixing.
- Allow the product to mature 4-5 minutes before remixing for 30 seconds.
- The finished mix has a creamy consistency, uniformly coloured and is easy to apply and spread.

## APPLICATION

- Tile Silver is applied using a suitable notch trowel. Apply adhesive on a prepared fixing surface with trowel and comb to the required bed thickness. Coverage on the back of the tile should be 100%.

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- Tiling must be carried out on freshly applied adhesive, exerting adequate pressure to ensure complete and uniform contact with the adhesive for optimum bond.
- Check the adhesive ribs periodically, if the skin has formed, remove the dried adhesive and apply fresh adhesive.
- Press the tiles firmly into position, checking periodically that good contact is maintained with the back of each tile and beat it using rubber mallet to imbed tile and just level.
- Adjust the tile if required.
- Clean off surplus adhesive from tile face and between tile joints before the adhesive has dried.
- After the required waiting time apply the appropriate grout into the tile joints.
- For tiles >900 cm<sup>2</sup> (30x30 cm), the double spreading (buttering technique) is always recommended.
- Use spacers while laying the tiles to provide tile grout joint between the tiles, remove spacers once adhesive sets firmly.
- Grout installation shall be commenced after minimum 24 hours of curing time.
- Grouting to be done using Nerolac Perma Tile R tone/K tone/R Poxy 2K/R Poxy 3K grouts. (Refer tile grout TDS for more information)

## CLEANING OF THE TOOLS

Clean all tools and equipment with water immediately after use. Hardened/cured material can only be removed mechanically.

## PRECAUTIONS

- Always add powder to water, do not excess than the recommended.
- Never add cement and sand at site.
- Designer/applicator must use additional mechanical fastening system for extra security for more than 3-meter high.
- Do not use adhesive to correct surface irregularities more than 15 mm.
- For natural stone tiles, always carry out preliminary test application first..

## EHS INFORMATION

Avoid inhalation, eyes and skin contact. In case of contact wash with water and seek medical attention

Refer MSDS for safety measures and precautions while handling Tile Silver.

## Other Products Categories available

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### Disclaimer:

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