



Suryashree Blocks
Private Limited
Committed to Quality

TECHNICAL DATA SHEET

***BUILDING NEXT
GENERATION OF
FUTURISTIC
CITIES***

Suryashree
Diamond S1 578

Polymer Enhanced Stone & Tile Adhesive

APPLICATION AREAS

Suryshree Diamond S1 578 is a blended polymer modified cement based high performance Tile Adhesive for fixing of Ceramic Tiles, Porcelain Tiles, Vitrified Tiles and Natural Stone on Floor and Wall. It is suitable for Internal/External Floor and Wall application.

SUBSTRATE

Adhesive can be applied on even and compact substrates, free of any substances that reduce adherence (grease, bitumen, oil, paint, dust etc.). Concrete should be at least 1 month old. Cement screeds and plasters should be fully cured. Anhydrite (residual moisture below 0.5%), gypsum (residual moisture below 1%) substrates should be mechanically roughened and cleaned from dust. Dry wall Aerated concrete should be free from dust. Can be applied on existing tiles and should be roughened and cleaned before application. Substrates must not be wet. Any existing dirt, loose layers and paint coating shall be mechanically removed. Absorbent substrates shall be dampen and remove excess water before application.

FEATURES

- Type 4 S1 as per IS 15477-2019
- For Ceramic, Vitrified Tiles (Semi & Fully)
- Glass Mosaic & Natural Stone (Non-Sensitive)
- Suitable for Large Scale & Heavy Duty Vitrified Tiles
- Application Up to 15mm
- C2 TE S1 Compliant with EN 12004 Standard
- Visible Fibres for Strength & Flexibility Balancing Substrate Deformations on Critical Surfaces Like Balconies, Terraces, Wet Rooms, Bathrooms, Swimming Pool & External Facade etc
- Suitable for Natural Stones on Internal as well as External Application
- Suitable for Cement Fibre Board, Gypsum Board Installation of Floors Subjected to Heavy Traffic

PRODUCT SAFETY

Product contains cement, strongly alkaline reaction with moisture, so protect skin and eyes. After contact wash immediately with plenty of water. After eye contact also seek medical advice. It is recommended to use protective gloves and goggles. For further and complete information about the safe use of our product, please refer to the latest version of our Material Safety Data Sheet.

Polymer Enhanced Stone & Tile Adhesive

COVERAGE

Consumption may vary depending on the evenness on the substrate, trowel notch size, type of tiles / stone and the application technique.

SHELF LIFE

Until 12 months since the date of production when stored in undamaged dry conditions and original packaging.

INSTRUCTION FOR USE

- The surface to be tiled should be sound and thoroughly cleaned to make it free from dust wax, grease, polish etc
- Pre measure 4.6 - 4.8 liters of clean water per 20kg of Suryshree Diamond S1, as per 23-24% ratio by weight, and pour into a suitably sized container
- Always put powder into water & mix it using a heavy duty slow speed drill at a low speed not to exceed 500 RPM fitted with a mortar mixing paddle
- Pre-wet tile and wait till it is dry. Pre-wetting is not required for vitrified/porcelain tiles
- Spread the paste to a thickness of approximately 4-8mm and comb with a notched trowel
- Ensure to apply the adhesive paste which can be tiled within 20 minutes
- Start placing the tiles on the surface to be tiled Tap the tiles properly with rubber hammer to ensure complete coverage of the backside of the tiles and to eliminate any possibility of air voids. Keep joints between two tiles using the spacers
- Allow tiling to set for 24 Hours
- Always use Notched Trowel for the better results

TECHNICAL DATA

Parameter	Results
Bulk Density	1.38 g/cc
Mixing Proportion	4.6 - 4.8 L of Water (23% - 24% by Weight) for 20 Kg Bag
Slip Resistance / Vertical Slip (T)	≤ 0.5 mm
Pot Life	4 hrs
Achieved Thickness	Up to 15mm

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TECHNICAL DATA

Parameter	Results	
Application Temperature	From +5°C to +35°C	
Grouting	After approx 24 hrs	
Adhesive Tensile Strength (according to EN 12004 2017 standard @ 23 + 2°C)	<div>Minimum Requirement</div> <div>Values In Range</div>	
Initial Dry Condition (After 28 Days) > 0.50 N/mm ²	≥ 1.N/mm ²	1.50-1.80 N/mm ²
After Water Immersion	≥ 1.N/mm ²	1.10-1.40 N/mm ²
After Heat Ageing	≥ 1.N/mm ²	1.50-1.80 N/mm ²
After Freeze/Thaw Cycles	≥ 1.N/mm ²	1.20-1.50 N/mm ²
Open Time @ 30 Minutes	> 0.5m/mm ²	0.60-0.70 N/mm ²
(According to IS 15477-2019 Standard @ 27 + 2°C)		
Dry Condition	≥ 1.50 N/mm ²	1.50-1.80 N/mm ²
Wet Condition	≥ 1.00 N/mm ²	1.10-1.40 N/mm ²
Shear Adhesion Strength (According to IS 15477-2019 Standard @ 27 + 2°C)		
Dry Condition	≥ 1.50 N/mm ²	1.55-1.75 N/mm ²
Heat Ageing Condition	≥ 1.00 N/mm ²	1.50-80 N/mm ²
Wet Condition	≥ 1.00 N/mm ²	1.10-1.40 N/mm ²
Open Time	30 Mins	
Adjustment Time	As Per Manufacturer	35 Mins
Deformation	≥ 2.5 mm & 5mm (S1 according to EN 12004 : IS 15477-2019)	
Temperature Resistance	From -30°C to +75°C	
Approximate Consumption	As a Guide : 1.2 kg / m ² / mm of Thickness	



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