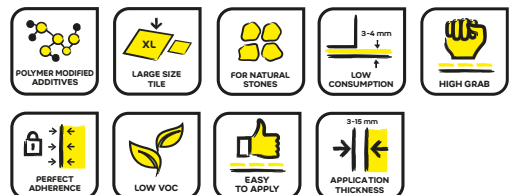




**Adhesive for
Natural Stones
cladding
weberset
firm**



Suitable for marble, granite, low porosity tiles, and other natural stones.



Weberset firm

Product description

Weberset firm is a highly polymer modified, high performance thinset adhesive, for tiles, mosaics and stones, on a variety of surfaces, for both vertical and horizontal application, in indoor as well as outdoor use. It is supplied as a drymix mortar, to which water needs to be added before application.

Features & benefits

- Internal and external use.
- Highly polymer modified: provides high structural adhesion, which allows to be used on a variety of substrates, for fixing a variety of tiles and stones.
- Can be used for new construction, as well as for renovation over existing floors/facades.
- Long open time.
- Prolonged and easy workability.
- Low VOC – for healthy living.
- No Hacking of substrate required to achieve the required bonding.
- Self-curing properties, which allows for no-hassle application, with minimum labor.
- Free flowing product, makes it easier to mix and apply.
- No sagformula: allows for hassle free application on vertical walls, without any slippage.
- Water resistant, making it suitable for swimming pools, bathrooms, kitchen, saunas, and spa.
- Sustains heat ageing, making it ideal for high temperature locations for outdoor use, and also for hot temperature applications, like Jacuzzi, sauna etc.
- No shrinkage, prevents debonding, and gives longer life to tiles and stones.
- Absorbs dynamic load.
- Useful for bed thickness of 3-12 mm. May go upto 15mm in limited extent.

Area of application

Refer Tile/Substrate sheet for details

Compliance / Standards

Specially formulated as per the requirements C (Cementitious) 2 (improved) T (Slip resistant) and E (extended open time) of ISO 13007 and EN 12004. Also complies to IS 15477:2004 (Type 2) and ANSI A118.15

Limitations

- Do not use on wet screed or plaster. Surface must be fully cured.
- Do not use on gypsum plaster or boards, fibre cement boards, or other drywall partitions.
- Can only be used on cementitious waterproofing. Don't use on epoxy or polyurethane waterproofing.
- Do not use for Installing glass tiles or metal tiles. Use only Weber bond poxy, for fixing glass and metal tiles.
- Do not use on Metal, rubber, plastics, vinyl, linoleum surface, painted substrates. Contact weber representative for fixing these.
- Do not use on surfaces subject to vibrations. Use Weberset flex for vibration prone areas.
- Do not use for fixing artificial stone or impregnated stone. Use Weberset ultra for the same.

Method of application

Preparing the substrate

- Clean the substrate of oil stains and bond inhibiting compounds, dirt, dust and laitance, if any, using high pressure water jet or any other suitable method.
- Ensure that the substrate is flat, stable, well adhered and has a normal absorption.
- Concrete screeds, renders and block work should be cured sufficiently to avoid the

shrinkage cracks.

- Correct the local undulation/damage on the substrate at least 48 hours before the application of weberset firm.
- Saturate the surface well and remove excess water before application of Weberset firm.

NOTE :

- *In case of higher undulation, a neat coat of SBR LitX to be applied on the substrate, followed by application of latex modified plaster, to smoothen the surface. (Refer technical datasheet of Weber SBR LitX for further details)*
- *In case of oil stains use of surfactants may be necessary, followed by proper cleaning with water, to avoid debonding of tiles.*
- *Leave expansion joints of atleast 10mm thickness, every 20 feet in the substrate. Do not cover expansion joints with adhesive, and can be filled with appropriate flexible sealant.*

Preparing the mix

- Gradually add 3 parts of Weberset firm to 1 part of clean water (by volume) and mix it to a lump free, smooth, workable paste using a suitable stirrer / low speed drill mix / or any other appropriate tool.
- After mixing allow the mixture to stand for 2 minutes for it to mature.

NOTE :

- *Do not attempt to extend the pot life by adding more water to the mix.*
- *Do not add any additional substance, like cement, sand etc. to the mix. These may adversely, effect the performance of the product.*

Applying the mix

- Apply the adhesive onto the substrate covering up to 1 m² at a time (or no more than can be tiled within 30 minutes). Unfavorable weather conditions (strong sun, dry wind, high

temperatures, etc.) or a highly absorbent substrate can reduce the open time, even to just a few minutes. It is therefore necessary that careful checks be made to ensure that a skin does not form on the surface of the spread adhesive. If not, re-freshen the adhesive by re-spreading with a notched trowel.

- It is not recommended to wet the adhesive with water once a skin has formed because, instead of dissolving the skin, the water will form an anti-adhesive film.
- Apply Weberset firm over the surface using the straight edge of the notched trowel and then comb the applied adhesive using the notched side of the trowel to achieve the desired thickness.
- Double buttering is recommended for heavier stones.
- If the adhesive is buttered to the tile, then ensure proper coverage of the tile surface to evade voids.
- Ensure adequate gap is kept between subsequent stones/tiles to accommodate for thermal expansion and contraction.

NOTE: The size of the notch trowel and the angle of application will determine the bed thickness as per the following formula:

$$\text{Bed Thickness} = \frac{N_w \times N_H \times \sin \theta}{(N_G + N_w)}$$

Where:

N_w is the width of the Notch
 N_G is the Gap in between the notches,
 N_H is the Height of the notch, and
 θ is the angle of application

Installing the tiles

- Clean the stone/tile with water before installation
- Bed the tiles firmly into the adhesive with a slight sliding and/or twisting action/shear, to ensure a good and uniform contact.

- It is good practice to lift an occasional tile after fixing, to verify that the required contact is being achieved.
- In wet areas, external areas and all floors, the final adhesive bed should be free from voids.
- If necessary, tiles should be adjusted, within 60 minutes of installation.
- Carefully clean off any excess adhesive from the tiles and joints with a damp sponge or cloth before it sets. Leave for at least 24 hours before grouting.
- More time may be required before grouting when tiling onto impervious or sealed surfaces or higher bed thickness.
- For swimming pools, leave at least 3 days before grouting and then a further 17 days before filling.

Note to specifier

- To use on gypsum plaster, ensure priming is done with Weber primer 401
- Use Weber primer 401, corner treatment with Stickon tape and two component Weber Waterseal 321 for comprehensive waterproofing, before application of Weber.set firm, where required.
- In case of highly dusty or porous substrate, apply 1 coat of Weber primer 401.
- To prevent any discolouration of Natural stone, treat with under-tile impregnator Weber Stone Protect.
- To get excellent stain resistance on stone, use hydrophobic and oliophobic impregnator Weber Stoneseal.
- To match joint with the color of tile/stone, use Weberjoint poxy along with Weber joint poxyfill, available in more than 40 colors.
- To get invisible joints between stones, fill with specially formulated Weber Pearl Armor™ specialty grout.
- To get high aesthetic appeal, fill joints with Weber Knight Armor™ specialty grout.

Grouting and sealing

Joints to be grouted after 24 hours of application of Weberset firm using Weberjoint poxy. It can also be grouted with Weber.color dewdrop along with Weber groutadd. In case of low humidity, high temperature, and even application of 3mm bed thickness, can also be grouted within 4-8 hours.

Ready for use

Surfaces are ready for use, after 14 days, post completion of grouting.

Product details

Physical state	Powder
Colour	White and Grey
Bulk Density	1.4 to 1.5 gm/cc
Mix Density	1.8 to 1.9 gm/cc
Mixing Ratio (powder to water)	2.5 : 1 by volume
Pot life	4 hours
Open time	30 mins
Adjustability time	30 mins
Ready for grouting on walls	24 hours
Ready for grouting on floor	24 hours
Set to light foot traffic	220 mins
Ready for use	14 days

* Tested at standard lab conditions.

Coverage

Approximately 1.4 – 1.5 Kg/sq. m per mm of thickness

NOTE : Ensure all surfaces are clean, smooth and plum, levelled, free of defects, and without undulations for maximum coverage.

Tile/substrate application table

SUBSTRATE TYPE	SUBSTRATES	Ceramic tiles	Terracotta	Ceramic mosaic	Quarry Tile	Vitrified Tiles	Glass Mosaics	Marble Mosaic	Natural Stone	Porcelain Tiles	Pavers	Brick	Precast terazzo
Cementitious	Cement-based screeds and mortars	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	cement-based plasters/renders	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Existing floor	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Concrete Masonry	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Cement Terrazzo	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Blocks	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Self Levelling Screeds	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Others	Brick Masonry	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Gypsum plaster	◆	◆	◆	◆	◆	◆	◆	✗	◆	✗	✗	◆
	Underfloor Heating installation	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✓
Tiles	Ceramic tile	✓	✓	◇	✓	✓	◇	◇	✓	✓	✗	✗	✓
	Vitrified tile	✓	✓	◇	✓	✓	◇	◇	✓	✓	✗	✗	✓
	Stone	✓	✓	◇	✓	✓	◇	◇	✓	✓	✗	✗	✓

◇ Without plastic mesh

◆ With Primer 401

Packaging

20 Kg double layered BOPP bags for maximum moisture protection and enhanced shelf life.

Shelf life

1 year from month and year of manufacturing, for unopened bags, stored in dry condition.

Condition of sale

Sold Subject to the company's condition of sale which are available on request.

Caution

There may be irritation caused in eyes and skin in case of contact for a very long time. Please seek

medical help if the problem persists for a long time. The product is recommended to be applied with gloves.

Disclaimer

The user should determine the usability of the product for its intended use. Our products are manufactured under the Saint-Gobain quality standards, and subjected to strict quality control procedures. Since the company has no control over site conditions and installation procedures, the company will not be responsible under any circumstances for any loss, damage or liability from incorrect usage.

Technical standards and performance

ISO 13007 and EN 12004

Classification	Property	Requirement	Weberset firm
C2 – – Improved cementitious adhesives (additional characteristics)	Tensile adhesion strength	≥ 1.0 N/mm ²	1.36 N/mm ²
	Tensile adhesion strength after water immersion	≥ 1.0 N/mm ²	1.29 N/mm ²
	Tensile adhesion strength after heat ageing	≥ 1.0 N/mm ²	1.21 N/mm ²
	Tensile adhesion strength after freeze-thaw cycle	≥ 1.0 N/mm ²	N/A
T - Slip resistance	Slip	≥ 0.5 mm	No Slip
E – Extended open time	Extended open time: tensile adhesion strength	≥ 0.5 N/mm ² after not less than 30 min	0.68 N/mm ²

ANSI A118.15

Condition	Property	Requirement	Weberset firm
Glazed Tile Shear Strength	7 day dry	≥ 450 psi (3.1 N/mm ²)	3.22 N/mm ²
	7 day water immersion	≥ 250 psi (1.7 N/mm ²)	1.85 N/mm ²
Impervious Mosaic (Porcelain) Tile Shear Strength	1 day	≥ 100 psi (0.69 N/mm ²)	0.73 N/mm ²
	7 day dry	≥ 300 psi (2.07 N/mm ²)	2.58 N/mm ²
	28 day dry	≥ 400 psi (2.8 N/mm ²)	2.91 N/mm ²
	7 day water immersion	≥ 200 psi (1.38 N/mm ²)	1.43 N/mm ²
Quarry Tile shear Strength	28 day dry	≥ 150 psi (1.03 N/mm ²)	1.17 N/mm ²

IS 15477 : 2004

Type	Property	Requirement	Weberset firm
Type 2 Adhesive: based on fixing tiles of apparent porosity less than or equal to 3 percent	Shear Adhesion Strength : Dry Condition 24 hrs	4 kN	5.72 kN
	Shear Adhesion Strength : Dry Condition 14 days	10 kN	13.56 kN
	Shear Adhesion Strength : Heat Aging Conditions	5 kN	6.30 kN
	Shear Adhesion Strength : Wet Conditions	5 kN	6.64 kN