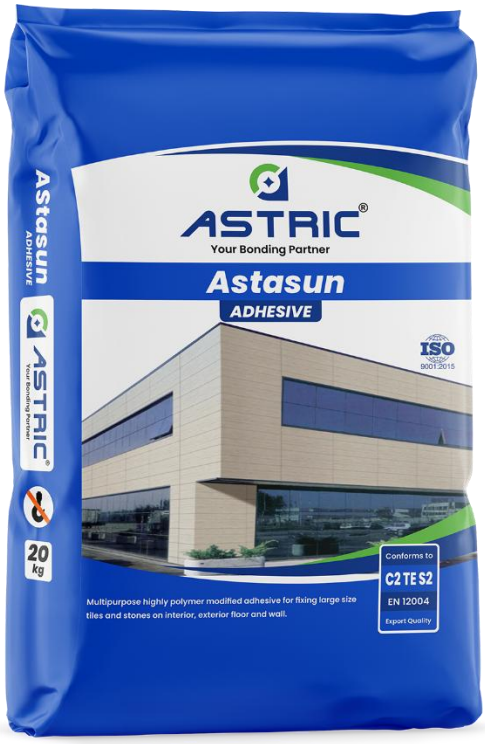
TECHNICAL DATA SHEET

ASTRIC™ ASTASUN



ASTRIC "ASTASUN" MULTIPURPOSE LFT ADHESIVE

A highly polymer-modified and highly flexible adhesive for installation of large format/slim tiles on most of the substrates to accommodate movements, It offers very good handling properties with good sag and slump resistance while doing Installation on wall or floor respectively. It can be applied up to 15 mm bed thickness.

APPLICATION

Designed especially for interior and exterior floor and wall installations of all types of ceramic tile. vitreous, semi- vitreous tile, paper faced glass mosaic tiles, precast terrazzo and (ALL SIZE) natural stones over concrete and on a variety of substrates. Good underwater shear bond allows this product to be used for wet areas like swimming pools, sauna. water bodies and washrooms. Can be used for tile on tile applications and as slurry bond adhesive in wet on wet applications

ADVANTAGES

- For fixing extra large format tiles & thin body tiles, natural granite & marble stone on demanding internal & external applications.
- Non-slump adhesive with a bed thickness up to 15mm
- Cream & non sag formula for easier installation on floor and wall.
- Highly flexible, lightweight formula. More than 15% higher coverage than standard adhesive.

SUITABLE SUBSTRATES

- Slim porcelain large format tiles Vitreous
- Semi-vitreous or non-vitreous tiles
- Ceramic
- Quarry
- Cement body tile
- Brick
- Cement based precast terrazzo
- Natural granite & marble stone



TECHNICAL DATA

Performance Properties:

ASTRIC™ ASTASUN

Application Standards:

EN:12004/ISO 13007:C2TE S2, TYPE 4 ADHESIVE

EN/ISO Data		
Property: Test Method	**Requirement**	**Typical Values**
Slip Resistance: EN 1308	≤ 0.50 N/mm²	≥ 0.25 – 0.30 N/mm²
Open Time: EN 1346	≥ 0.50 N/mm²	20 - 30 Minutes
Tensile Adhesion Strength		
After Water Immersion: EN 1348 – Clouse 8.3	≥ 2.00 N/mm²	≥ 2.00 – 2.70 N/mm²
Initial: EN 1348 – Clause 8.2	≥ 2.00 N/mm²	≥ 2.00 – 2.30 N/mm²
Freeze – Thaw : EN 1348 – Clouse 8.5	≥ 2.00 N/mm²	≥ 2.30 – 2.50 N/mm²
Heat Ageing: EN 1348 – Clouse 8.4	≥ 2.00 N/mm²	≥ 2.30 – 2.50 N/mm²
Transverse Deformation: EN12002	> 5.00mm	> 5.20 mm

The Adhesive mortar conforms to EN12004 / ISO 13007 as C2TES2 Adhesive.

Packaging:

20 kg

Colour:

Grey & White

Working Properties at 70°F (23°C):

ASTASUN C2 TE S2

Pot life	2 – 3 Hours
Time to Heavy Traffic	16 – 24 Hours
Open Time	30 Minutes
Adjustability Time	45 Minutes

Specifications may change without prior notice. The displayed results are typical and based on test procedures; actual field performance will vary depending on installation techniques and site conditions.

Coverage Details (per 20kg bag:)

Trowel Size	Average Bed Thickness	Minimum Coverage	Maximum Coverage
6 × 6 mm Square Notch	3 mm	55 ft^2 /5.58m^2	61 ft^2 /5.67m^2
9 × 9 mm Square Notch	4.5 mm	36 ft^2 /3.35m^2	40 ft^2 /3.71m^2
12 × 12 mm Square Notch	6 mm	28 ft^2 /2.60m^2	31 ft^2 /2.88m^2
18 × 18 mm Square Notch	9 mm	18 ft^2 /1.67m^2	20 ft^2 /1.86m^2
6 mm surface levelling + 12 × 12 mm square Notch	12 mm	14 ft^2 /1.30m^2	16 ft^2 /1.49m^2

*Coverage will vary depending on the type of size of tiles: substrate smoothness and unevenness.

Installation Guide for ASTRIC ASTASUN

To achieve a successful installation of very large format/thin tiles, follow these recommendations:

1. **Proper surface preparation**
2. **Proper material mixing & application**
3. **Use of an edge-leveling system**
4. **Beating of the tile into the mortar bed using a rubber mallet**

Surface Preparation:

- Ensure all surfaces are between 50°F (10°C) and 100°F (38°C), structurally sound, clean, and free of dirt, oil, grease, loose paint, laitance, concrete sealers, or curing compounds.
- Proper surface preparation is crucial. Remove any demolding wax powder from the back surface of the tile. If a fiber mesh is present on the back surface, ensure it is completely removed before proceeding with the installation using ASTRIC ASTASUN.

Floor Flatness:

- Substrates should not vary more than 1/8" in 10 feet (3 mm in 3.05 m) or 1/16" in 24 inches (2 mm in 600 mm) from the required plane, measured from high points in the surface with a straight edge.

Wall Flatness:

- Substrates should not vary more than 1/8" in 10 feet (3 mm in 3.05 m) or 1/16" in 24" (2 mm in 60 cm) from the required plane, measured from high points in the surface with a straight edge.
- Surface flatness is essential, as mild impacts on uneven surfaces can cause large format/thin tile to crack.
- Dry, dusty concrete slabs or masonry should be dampened with excess water swept off. Installation may proceed on a damp surface. New concrete slabs should be damp cured and at least 28 days old before tile installation.

Bonding to Concrete Surfaces:

- Concrete or plaster must be fully cured and able to absorb water. Test by sprinkling water on various areas; if absorbed, a good bond can be achieved. If water beads, surface contaminants must be removed mechanically before installation.
- Concrete must be free of efflorescence and not subject to hydrostatic pressure. Concrete slabs should have a coarse finish to enhance the bond. Smooth concrete slabs must be mechanically abraded to improve bond with the adhesive mortar.

Bonding to Lightweight Cementitious Systems:

- Lightweight underlayments must have sufficient compressive strength before large format tile installation. The underlayment must be sufficiently dry and cured to the manufacturer's specifications. Surfaces must be structurally sound and free of grease, oil, dirt, dust, curing compounds, waxes, sealers, efflorescence, or other foreign matter.

Bonding to Cutback Adhesive:

- Remove hardened adhesive parts, as they reduce mortar bond strength. Never use adhesive removers or solvents, as they may soften the adhesive and cause it to penetrate the concrete. Adhesive residue must be wet scraped to the finished surface of the concrete. Perform a test bond area before starting the installation process.

Movement Joint Placement:

- Movement joints are required for perimeters and other changes of plane. Expansion joints should be provided through the tile work from all construction or expansion joints in the substrate. Do not cover expansion joints with thin-set mortar. Follow ANSI Specification AN-3.8 "Requirements for Expansion Joints" or TCA Detail EJ171 "Expansion Joints". For tile installation over Cement Backer Board, follow TCA installation details W244.

Material Preparation & Application:

Mixing Procedure:

- Place clean, potable water into a clean mixing bowl. Add LATICRETE 345 Super Flex powder. Use approximately 5.5–6 L of water for 20 kg of powder. Mix with a low-speed paddle drill to achieve a smooth, paste-like consistency. Let the mixture stand for 5-10 minutes, then stir again before use. Stir occasionally without adding more water. Properly mixed, troweled ridges should stand without slump.

Mixing Ratios:

- Mix 5.5-6 L of clean water with a 20 kg bag of mortar.

Application of Product:

Tile/Stone:

- Use a properly sized notch trowel for proper coverage under tiles. Apply a skim coat of mortar to the surface with the flat side of the trowel. Apply additional mortar with the notched side at a 45° angle, combing in one direction. Press the tile firmly into place with a perpendicular motion across ridges. Back-buttering is mandatory for all large format tiles. Recomb with the notch trowel if the material has skinned over; replace dry material with fresh if too dry. Do not use adhesive mortar to fill low spots in the flooring. Maintain ambient temperature between 50°F (10°C) and 100°F (38°C) for 72 hours for proper bonding.

Note to Specifier and Installer:

- Ensure the adhesive mortar is suitable for the tile installation based on substrate type, tile size, tile type, and application area.
- For external wall and floor installations, provide spacer joints and fill them with ASTRIC ASTASUN cement-based grout mixed with ASTRIC ASTASUN grout admix plus or flexible grout like ASTRIC ASTASUN. Spacer joints are essential to prevent surface movements from causing tile or stone debonding.
- Exterior tile/stone installations should have joints (spaces) on the periphery without being bound by peripheral masonry work or plaster.

Hot & Cold Weather Tiling:

- Refer to the technical document on Hot & Cold weather tiling.

Grouting:

- Commence grout installation after a minimum of 24-48 hours of curing at 70°F (21°C). Use ASTRIC ASTASUN Sanded or Unsanded Grout mixed with ASTRIC ASTASUN Grout Admix Plus for maximum stain resistance of internal spacer joints. For maximum stain resistance of external spacer joints, use ASTRIC ASTASUN Stellar Grout, which is UV resistant and accommodates movements.
- Adhesives and grouts are not replacements for waterproofing. For waterproofing requirements, choose an appropriate membrane.

Use of a Mechanical Edge-Leveling System:

- Mechanical edge-leveling systems or clamps help reduce lippage and align tile edges, minimizing lippage to zero in many cases.

Beating of Tile into Mortar Bond Coat:

- Lightly beat the tile surface with an orbital sander, starting from the center and working outwards. If unavailable, use a rubber mallet to tamp the surface slowly. Avoid applying excessive downward pressure.

Cleaning of Equipment:

- Clean all tools with water before the material dries.

Storage:

- Store in a cool, dry area.

Health Precautions:

- Refer to the Safety Data Sheet for more information.
- This product contains Portland cement and silica. Avoid eye contact and prolonged skin contact. Wash thoroughly after handling. In case of eye contact, flush with water for 15 minutes and consult a physician. Do not breathe dust; wear a T4-type respiratory mask. Follow ISO 45001 Occupational Health and Safety Clauses.

CUSTOMER CARE :

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