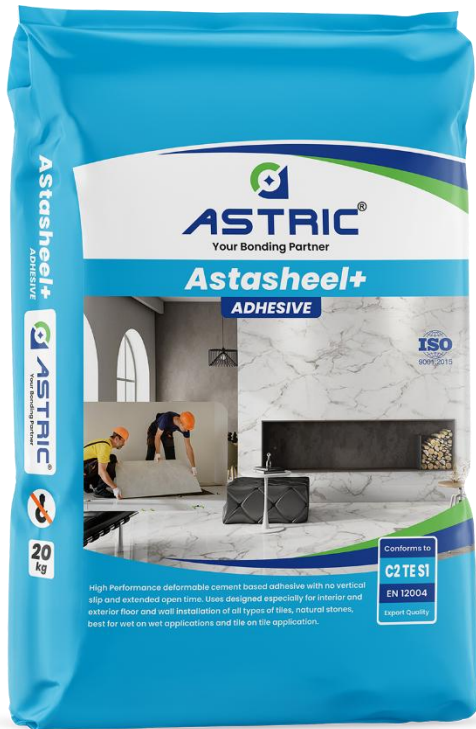


TECHNICAL DATA SHEET

ASTRIC® ASTASHEEL+



ASTRIC "ASTASHEEL+" MULTIPURPOSE FLOOR AND WALL TILES ADHESIVE

A multipurpose high polymer modified adhesive for interior and exterior installation of ceramic tiles, stone, quarry tiles, glass mosaic tiles, pavers and bricks ASTRIC "ASTASHEEL+" Multipurpose Floor and Wall Tile Adhesive is designed to mix with water and has a convenient open time with high adhesion & workability.

APPLICATION

Designed for exterior and underwater applications, large size of vitrified tiles and natural stones, superior bond to concrete, cement renders, screeds.

ADVANTAGES

- For fixing tiles & stone on demanding external & internal application
- High Performance in all types of weather
- Single component just add water
- Polymer-modified adhesive: Flexible and strong bond.

SUITABLE SUBSTRATES

- Concrete
- Cement Mortar Beds
- Existing Tiling on Floor & Wall
- Concrete Masonry
- Ceramic Tiles, Natural Stone
- Marbles & Granite
- Cement Plaster
- Brick Masonry
- Cement Terrazzo



TECHNICAL DATA

Performance Properties:

ASTRIC® ASTASHEEL+

Application Standards:

EN:12004/ISO 13007:C2TE S1, TYPE 3 ADHESIVE

| EN/ISO Data | | |
|---|----------------------------------|---|
| Property: Test Method | Requirement | Typical Values |
| Slip Resistance: EN 1308 | ≤ 0.50 N/mm ² | $\geq 0.20 - 0.30$ N/mm ² |
| Open Time: EN 1346 | ≥ 0.50 N/mm ² | 20 - 30 Minutes |
| Tensile Adhesion Strength | | |
| After Water Immersion: EN 1348 – Clause 8.3 | ≥ 1.50 N/mm ² | $\geq 1.60 - 1.80$ N/mm ² |
| Initial: EN 1348 – Clause 8.2 | ≥ 1.50 N/mm ² | $\geq 1.60 - 2.00$ N/mm ² |
| Freeze – Thaw : EN 1348 – Clause 8.5 | ≥ 1.50 N/mm ² | $\geq 1.75 - 2.00$ N/mm ² |
| Heat Ageing: EN 1348 – Clause 8.4 | ≥ 1.50 N/mm ² | $\geq 1.20 - 1.45$ N/mm ² |
| Transverse Deformation: EN12002 | $\geq 2.5\text{mm}$ < 5.00mm | 2.55mm – 2.65mm |

The Adhesive mortar conforms to EN12004 / ISO 13007 as C2TES1 Adhesive.

Coverage Details (per 20kg bag:)

| Trowel Size | Average Bed Thickness | Minimum Coverage | Maximum Coverage |
|---|-----------------------|---|---|
| 6 × 6 mm Square Notch | 3 mm | 50 ft ² / 4.65m ² | 55 ft ² / 5.11m ² |
| 9 × 9 mm Square Notch | 4.5 mm | 35 ft ² / 3.25m ² | 40 ft ² / 3.71m ² |
| 12 × 12 mm Square Notch | 6 mm | 30 ft ² / 2.79m ² | 32 ft ² / 2.97m ² |
| 18 × 18 mm Square Notch | 9 mm | 20 ft ² / 1.85m ² | 22 ft ² / 2.04m ² |
| 6 mm surface levelling + 12 × 12 mm square Notch | 12 mm | 15 ft ² / 1.39m ² | 17 ft ² / 1.58m ² |

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

Packaging:

20 kg

Colour:

Grey & White

Working Properties at 70°F (23°C):

ASTASHEEL+ C2 TE S1

| | |
|-----------------------|-----------------|
| Pot life | 2 – 3 Hours |
| Time to Heavy Traffic | 16 – 24 Hours |
| Open Time | 20 - 30 Minutes |
| Adjustability Time | 45 Minutes |

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

Installation Guide for ASTRIC® ASTASHEEL+

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 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® ASTASHEEL+.

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.

Material Preparation & Application:

Mixing Procedure:

- Place clean, potable water into a clean mixing bowl. Add ASTRIC® ASTASUN 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.

Paper faced Glass Mosaic tiles

- To install Paper Faced Glass Mosaic tiles, apply ASTRIC® ASTASHEEL+ adhesive to the surface with a notched trowel, ensuring good contact by using a scraping motion. A 4 mm notched trowel is recommended for achieving a bed thickness of 1.5-2 mm, while a 3 mm V-notch trowel can also be used to get a bed thickness of 1.5 mm. Apply only as much adhesive as can be covered with tile within 10-15 minutes or while the adhesive is still tacky. Set the Glass Mosaic tiles in place, gently beating them with a mallet or grouting float to ensure 100% full bedding. Align the tiles to achieve uniform joints and allow them to set until firm. Once the tiles are set, dampen the face of the sheets of front paper-mounted glass mosaic tiles to remove the face mount paper.
- NOTE: All glass mosaics with mesh backing should be installed using a resin-based adhesive like PU

Note to Specifier and Installer:

- Verify whether the chosen adhesive mortar is suitable for tile installation by considering the following factors:
 - Type of Substrate
 - Size of Tile
 - Type of Tile
 - Area of Application

For exterior tile or stone installations, joints (spaces) are included around the perimeter of the area. This ensures that the tile or stone is not constrained by the surrounding masonry or plaster.

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.

Cleaning of Equipment:

- Clean all tools with water before the material dries.

Storage:

- Store in a cool, dry area.

CUSTOMER CARE :

ASTRIC® INDUSTRIES

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