# VINYL 400 FLEX



# High performance deformable vinyl tile adhesive





### PROPERTIES

New generation, and highly flexible tile adhesive based on cement and selected aggregates with uniform grain sizes. Reinforced with vinyl resins (vinyl acetate 2.50%). Distinguished for its strong adhesion, its zero vertical slip and resistance to moisture and frost. Its high thixotropy allows for coatings in thicknesses of up to 15mm without sagging while it has an extended open time.

Classified C2TE S1 per EN 12004 and EN 12002. The product has received an Environmental Product Declaration (EPD) following an assessment of the environmental impact of its life cycle. Registration number: S-P-13557, The International EPD® System.

### APPLICATIONS

VINYL 400 FLEX is suitable for bonding low and non absorbent tiles like granite, glass mosaic, cotto,

klinker, porcellanato, porcellanato smaltato and decorative bricks, regardless of their dimensions. It is ideal for sound substrates, such as floor cement screeds, brushable cementitious waterproofers, prefabricated concrete walls, existing tiles, mosaic and marble-based plaster. Distinguished for its durability against expansions and contractions indoors, associated with floor radiant heating systems, and intense temperature variations in outdoor spaces, such as balconies and terraces. It provides excellent adhesion in areas with permanent moisture, such as athletic and swimming pools, fountains, bathrooms, showers, etc. Its high thixotropy allows for wall tile installations top down. It is suitable for heavy traffic areas, such as car showrooms, airport terminals, shopping malls, super markets, as well as catering halls and public areas in general.

The technical specifications and directions of use contained in this technical data sheet are the results of the knowledge and experience of the company's research and development department, as well as from the real-life applications of the product. The recommendations and suggestions regarding the use of the products are made without guarantee since the respective conditions during their application are beyond the control of the company. For this reason, it is the user's responsibility to make sure that the product is suitable for the intended application as well as the application conditions of the project.

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Adding DUROSTICK ACRYLIC EMULSION in the mixing water, at a ratio of 1:1, further improves its characteristics.

## USE

### 1. Surface preparation

The application surface has to be sound, clean, free of loose materials, dust, paint, grease and oils. The surface has to be soaked before the application. It is necessary to prime all absorbent substrates and aircrete, using either the ACRYLIC EMULSION or D-20 of DUROSTICK, at a mixing ratio of 1:1 with water. It is necessary to prime all cement boards using either the micromolar stabilizer AQUAFIX or SOLVENT BASED PRIMER of DUROSTICK. Lightweight or else, unsound cement screeds, must necessarily be primed with DUROSTICK ACRYLIC EMULSION or D-20 at a ratio of 1 part additive to 2 parts water or 1 part DUROMAX to 5 parts water. Follow all balcony and terrace, bathroom and shower, fountain and swimming pool applications by coating the substrate with HYDROSTOP FLOOR, D-1 or D-1 FLEX with 2-3 successive, crosswise coats to ensure the waterproofing of the substrate.

# 2. Application

Empty 25kg of the adhesive into a clean container with 7.0-7.5lt of cool water (5kg adhesive to 1.4-1.5lt of water). Mix with a low rpm electric mixer until a lump free, homogeneous mass is created. Allow the mixture to mature for 5-10 minutes. During use mix periodically, without adding extra water. Apply the adhesive using a notched trowel and spread on the substrate evenly.

Coat as much surface as is required to work for the next 15-30 minutes (depending on weather conditions), thus avoiding skin formation. Finally, install the tiles in the selected position by tapping softly with a rubber mallet. When working with medium and large format tiles, the installation is done by the method of double-coat application, on the substrate, but also on the tile (tile back buttering).

# USEFUL TIP

Tile installations on high load and stress surfaces (balconies, roofs, athletic and swimming pools, garages), make it necessary to use high-quality bonding products because, besides the assurance they provide, their cost is very small when compared to the value of the tiles and the installation cost.

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On exterior surfaces, it is highly recommended to create expansion joints every 16-20m<sup>2</sup>. Prime the expansion joints with PRIMER-PU, to improve grip, fill them with the backer rod of DUROSTICK, DS-265, and seal them with the polyurethane sealant, DUROFLEX-PU. Similarly, seal all the joints (5-8mm) at the junction of the tiles and vertical surfaces throughout the perimeter. Alternatively, the application of DS POLYMER sealant, available in 32 colors (same ones with the grout colors of DUROSTICK), ensures sealing without cracking at the junction of the tiles with the skirting and above it as well. On floors with radiant heating systems, it is recommended to create expansion joints every 20m<sup>2</sup> and fill them with DS POLYMER sealant, available in 32 colors.

### CLEANING

Clean all tools with water, immediately after use.

### CONSUMPTION

3-5kg/m<sup>2</sup>, depending on the size of the notch of the trowel, the smoothness of the substrate and the dimensions of the tiles.

## STORAGE

Store in the factory sealed packages, in dry and shaded places, for 12 months from production date.

### SAFETY DIRECTIONS

The product contains Portland cement. Before use, refer to the cautions on the product's packaging or the Safety Data Sheet.

## PACKAGING

Paper bag of 25kg on 1.500kg pallet.

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TECHNICAL SPECIFICATIONS (Measurement conditions 23°C and 50% R.H.)		
Form - Color	Cementitious mortar - White	
Bulk density of dry mortar	1.30±0.05kg/lt	
Slip per EN 1308	< 0.2mm	
Water requirement	7.0lt water per 25kg mortar	
Application temperature	From +5°C to +35°C	
Temperature resistance	From -35°C to +90°C	
Application thickness	Up to 12mm	
Pot life	Approximately 7 hours*	
Open time per EN 1346	30 minutes*	
Time for minor adjustments	30 minutes*	
Grouting	After 4-8 hours on wall, after 24 hours on floor	
Foot traffic	After 24 hours	
Deliver to use	After 12-14 days	

PRODUCT PERFORMANCES		
Adhesion strength, per EN 1348, after:		
• 28 days	≥ 2.30 N/mm²	
<ul> <li>Thermal ageing at +70°C</li> </ul>	≥ 1.90 N/mm²	
Water immersion for 21 days	≥ 1.70 N/mm²	
• 25 freeze - thaw cycles	≥ 1.55 N/mm²	
Deformability S per EN 12002	2.5mm ≤ S < 5mm	

\* Depending on the weather conditions (temperature, humidity).

Certified by the GEV institute in the top category EMICODE<sup>®</sup> label EC1 Plus given to products on the verge of technological innovation and extremely low percentage of volatile emissions. The product complies with the strictest environmental and health requirements.

NOTE: The product exceeds the statutory requirements for C2 adhesive.

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