Product Properties Sheet
Version: B' - 01/12/2011

VKW 128 SUPER FLEX **HIGH ELASTIC TILE ADHESIVE**

C2TE S1 ACCORDING TO **EN 12004 & EN 12002**

DESCRIPTION

H VKW 128 is a thin layer adhesive for absorbent and non-absorbent tiles of high elasticity modified with polymer additives and based on cement for usage on both horizontal and vertical surfaces. It consists of cement, quartz sand, lime fillers and improvement additives. It presents very strong adhesion on all common sub-layers and high resistance against weather conditions (rain – heat-wave - frost). Moreover, it avails extended open time (up to 30 minutes) increasing thus the productivity of crews. It is ranked as an adhesive type C2TE as per EN 12004 and S1 as per EN 12002 for interior and exterior applications.

FIELDS OF APPLICATION

Particularly recommended for the adhesion of both absorbent and non-absorbent tiles on external building facades, as well as on sub-layers requiring high adhesion tolerances, elasticity and resistance to climatic variations. Its thixotopic qualities allow the crew to commence tile adhesion from the upper side towards the lower one. It is adequate for the adhesion of:

- small or large ceramic tiles of all types
- thin marble rock tiles
- natural or artificial granite tiles
- Cotto tiles
- Klinker tiles
- Gres tiles
- porcellanato, porcellanato smaltato
- glass inlays
- decorative elements and inlays
- glass blocks

On common substrates such as:

- concrete
- light concrete
- porous concrete (YTONG)
- self-leveling floors
- cement screeds
- renders
- flat walls with filled joints
- mosaics

On difficult substrates subjected to thermal dilation and heavy traffic as well as in areas with constant moisture such as:

- heated floors
- previously laid tiles
- pools
- bathrooms
- showers
- car showrooms
- malls
- utility areas
- Exterior tile layering
- tanks
- porches
- Roof tops
- Plaster boards following priming with acrylic primer GLX 292
- wooden surfaces
- metallic surfaces

ADVANTAGES - CHARACTERISTICS

- Produced with quartz sand
- High elasticity of type S1 as per the European standard EN 12002
- Strong adhesion on demanding sub-layers
- Adequate for in floor heating and pools
- Adequate for wooden and metallic surfaces
- Strong adhesion on vertical surfaces
- Resistance to weather conditions
- Excellent workability
- High tolerance – Fast application
- Resistance to humidity and frost
- CE certified- as per the European standard EN 12004

SUBSTRATE PREPARATION

The tile laying sub-layer must be flat, free from brittle and foreign bodies such as for example plaster residue, paint, oils, etc.

It must be stable and free from shrinkage and distortion forces and must not be subject to vibrations.

APPLICATION

In a clean container add 8.5-9.0 liters of clean water and gradually empty the content of a 25 Kg sack of product VKW 128, mixing continuously with an electric mixer in order to acquire a uniform slurry mass. Let the resulting mixture age for 5 minutes and mix again. The mixture is ready to be used within the next 4 hours. Following the preparation of the mixture do not add more water in order to correct the workability of the slurry. This would lead to the reduction of its tolerances and the increase of its shrinkage. Spread the adhesive on the surface and then comb the adhesive layer using a special toothed spatula. Within 30 min since adhesive layering, place the tiles at their location, pressuring firmly in order to ensure full contact. The installation of tiles on the wall may be performed starting from the upper part with the entire tile and without any slippage. The excess adhesive must be cleaned off the joints prior to its drying.
On surfaces larger than 25m2 it is necessary to install expansion joints. At the areas of contact of floors with walls it is recommended to use adequate silica-containing pastes.
During application and for the next 24 hours the environmental and sub-layer temperature must be between +50C and +350C.
The adhesive is cleaned with water while still wet. When it hardens it is removed mechanically

GROUTING

H Mounting and passability is allowed after 24 hours. For mounting there is usage of THRAKON FMF 150 tile grouts (based on cement) or, if necessary,THRAKON FMF 155 epoxy tile grouts.

CONSUMPTION

The consumption of VKW 128 is approximately 2,0 --4,0 kg / m^2. It depends on the tiles type.

Tiles Size	Spatulla mm	Consumption kg / m^2
small	6	2,4
medium	8	3,3
large	10	4,0

MODIFICATION

If during mixture preparation there is addition of 1-2 kg/sack of 25Kg, of VLX 186 emulsion and the necessary water quantity, there is enhancement of the product characteristics which shall respond to class S2 of EN 12002.

Following modification the adhesive is adequate for the adhesion of tiles on non-absorbent sub-layers and open areas subjected to intense temperature variations, vibrations and contractions – dilations

The technical information and instructions contained in the present brochure and referring to the application and end use of Thrakon products are based on the up to now know-how and experience of the Company with regards to the products and are provided in good faith as long as such products are stored, used and applied as per Thrakon recommendations. Due to the inability, on our part, to directly inspect the conditions prevailing at the worksite as well as the application procedures of the product, the Company does not provide any guarantee with regards to the adequacy of its products for specific purpose while the Company shall not bear any legal responsibility based on the information stated in the present brochure or any other written, oral, or otherwise provided recommendations and instructions. The users of the products are advised to perform a limited surface testing of the products adequacy for the eventual application and use intentions. Thrakon reserves the right to modify the features of its products without prior notification. All orders shall be approved only following acceptance of the above and under the eventual Commercial Policy terms of the Company. The issuance of the present brochure voids any prior version.

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PACKING - STORAGE

The product is packed in 25 Kg valve acks and is preservatively stored in wooden pallets in dry environment at temperatures than 0^0C for 12 months of its production date.

NOT RECOMMENDED

It is not recommended for usage in:

- Sub-layers made of plaster without prior priming
- Floors subject to particularly intense distortion and vibrations such as iron and wood when these are located in exterior areas in these cases, there should be usage of special THRAKON adhesive types

PRECAUTION

VKW 128 contains cement that reacts with water producing an alkaline solution. For this reason protect your eyes and skin. In case of contact wash with plenty of water. In case of contact with the eyes seek immediately medical advice. Read the information contained on the label and the Technical Sheet of the product before use. Use adequate protective clothing and gloves. The Safety Sheet of the product is availed to professionals upon request.

TYPE C2TE S1 OF THE EUROPEAN STANDARD EN 12004 και EN 12002

TECHNICAL CHARACTERISTICS	UNITS	STANDARD	VALUE
Form			dry powder
Color			white / grey
Application thickness	(mm)		10
Resistance to temperature	(^{o}C)		-30 to +90
Maximum grain size	(mm)		0,5
Working time	(h)	EN 1015 - 9	5
Correction time	(min)	EN 1015 - 9	≥30
Open time (30min)	(N/mm^2)	EN 1346	≥0,5
Initial tensile adhesion strength	(N/mm^2)	EN 1348	≥1
Tensile adhesion strength after water immersion	(N/mm^2)	EN 1348	≥1
Tensile adhesion strength after heat ageing	(N/mm^2)	EN 1348	≥1
Tensile adhesion strength after freeze-thaw cycles	(N/mm^2)	EN 1348	≥1
Lateral deformation S	(mm)	EN 12002	2,5≤S<5
Slip	(mm)	EN 1308	≤0,5
Walking	(h)		24
Strength development	(days)		14
Wall grouting	(h)		12
Floor grouting	(h)		24
Consumption	(Kg/m^2)		2 - 4
Water demand properties	(ml water /100g of dry mortar)		32 - 36

Note: The measurements were taken in laboratory environment under a temperature of +230C, Relative humidity 50% and without ventilation. It is possible for them to vary depending on the conditions prevailing at the worksite such as temperature, humidity, ventilation, sub-layer and frame absorbance..