

# VELOSIT® TA 704

Thin & Medium Bed Tile Adhesive  
C2TE, normal setting



## Application fields

VELOSIT TA 704 is a cementitious tile adhesive for a wide variety of tiles and natural stones on typical construction substrates like dry wall, screeds, concrete and masonry. Typical application fields include fixing of tiles and natural stones:

- On cementitious, magnesite and gypsum-based floor screeds
- On gypsum board walls, plaster, concrete and masonry
- In swimming pools (over waterproofing layer)
- In wet rooms, showers and kitchens
- Interior and exterior applications

## Properties

VELOSIT TA 704 is a C2TE cementitious tile adhesive with normal strength development.  
VELOSIT TA 704 is applied with a notched trowel.

Typical properties:

- Long pot life

- Surpasses the requirements of EN 12004, Class C2TE
- Mortar bed thickness between 2 and 12 mm (1/12" to 1/2")
- 30 min. open time and 0.5 MPa (73 psi) adhesive strength after 24 hours
- Very good adhesion to most construction substrates

## Application

### 1.) Substrate preparation

VELOSIT TA 704 is designed for mineralic substrates like concrete, masonry or absorptive natural stones, in addition to gypsum or gypsum fibre boards.

Substrate must be pore-open and of load bearing capacity. Surfaces must be prepared by removing all bond-breaking substances. Minimum adhesive and compressive strength requirements of 1.0 MPa (145 psi) and 20 MPa (2900 psi) respectively. Lower strength values may be accepted if lower adhesive strength is acceptable to the consultant/supervising engineer. Gypsum boards give good adhesion but due to the substrate strength, only 0.2-0.3 MPa (15-22 psi) can be achieved.

The Velosit logo consists of three horizontal lines of varying lengths to the left of the word "velosit" in a bold, lowercase, sans-serif font.

Active water leaks must be treated and fully stopped with VELOSIT PC 221. Leaking cracks need to be sealed with a PU injection material.

Blowholes, honeycombs or other surface defects can be filled with VELOSIT TA 704 or a repair mortar such as VELOSIT RM 202. Where required (i.e. in swimming pools, water tanks etc.) apply a seamless waterproofing system such as VELOSIT WP 120.

Screeds must have sufficiently cured. The moisture content determined with a CM device must be less than 2% on cementitious screeds and underlayments and less than 0.5% on calcium sulphate based screeds (<0.3 % on heated screeds). On rapid setting screeds refer to manufacturers requirements.

Absorptive substrates must be primed with VELOSIT PA 911.

## 2.) Processing

Mixing: Mix VELOSIT TA 704 with 27- 32% potable water, i.e. 6.7 – 8 l (1.8 – 2.1 gal.) water per 25 kg (55 lb.) bag. Fill the complete mixing water into a suitable bucket and mix the powder with a slow speed drill (300-600 rpm) into the water until a lump-free mix is achieved. Add more water under stirring until the desired consistency is achieved. Allow the product to stand for 2 min. and mix again for 1 to 2 minutes. The product is workable for 60 min. at 23°C. Apply the desired amount of VELOSIT TA 704 with a notched trowel on the substrate and push the tiles or natural stones into the adhesive bed. For exterior and swimming pool applications also apply VELOSIT TA 704 to the back side of the tile ("buttering & floating" method). Tile position can be corrected for several minutes. The time depends on the absorptivity of the tile back.

## 3.) Curing

VELOSIT TA 704 does not require curing as it reacts very fast with water. The surface is carefully trafficable after 6-8 hours.

## Estimating

Application rate, notched trowel:	
VELOSIT PA 911:	0.1 kg/m <sup>2</sup> *
VELOSIT TA 704 - 6 mm notches:	2.4 kg/m <sup>2</sup> * (4.9 lbs/10ft. <sup>2</sup> )
- 8 mm notches:	3.0 kg/m <sup>2</sup> * (6.2 lbs/10ft. <sup>2</sup> )
- 10 mm notches:	3.6kg/m <sup>2</sup> * (7.4 lbs/10ft. <sup>2</sup> )

Other thickness requirements: 1.4 kg\* VELOSIT TA 704 per m<sup>2</sup> for 1 mm adhesive thickness on smooth substrates. Depending on surface roughness application rates can be significantly higher.

\* 1.4 kg VELOSIT TA 704 powder + 0.4 kg water, i.e. 1.8 kg mixed material per mm and m<sup>2</sup> (2.9 lbs. per 40 mil dft and 10 sq.ft.)

## Cleaning

VELOSIT TA 704 can be removed in the fresh state with water. Once cured, acidic cleaners like muriatic acid are required.

## Quality features

Color:	Grey
Mixing ratio by weight:	100 : 27
Mixing ratio by volume:	100 : 39
Density:	1.4 kg/l
Substrate temperature:	5 – 35°C* (40-95°F)
Pot life:	60 min.
Open time:	30 min.
Adhesive strength, dry:	> 1.0 MPa (>145 psi)
Adhesive strength, wet:	> 1.0 MPa (>145 psi)
Adhesive str., freeze/thaw:	> 1.0 MPa (>145 psi)
Adhesive str., warm storage:	> 1.0 MPa (>145 psi)
Fire rating EN13501-1:	Class E

## Packaging

VELOSIT TA 704 is available in 20 kg (44 lb.) and 25 kg (55 lbs.) watertight plastic bags.

## **Storage**

VELOSIT TA 704 can be stored in unopened original packs for 12 months at 5-35°C (40-95°F) in a dry storage place protected against sunlight.

## **Safety**

Please observe the actual valid material safety data sheet and follow the described safety measures for handling of the product.

Used product containers must be emptied completely after use. They can be returned to VELOSIT GmbH & Co. KG on request.

## **Recommendations**

VELOSIT TA 704 is only available for professional applicators.

Never add water to VELOSIT TA 704 when it has started to set. Stiffened material must be disposed.

All described product features are determined under controlled laboratory conditions according to the relevant international standards. Values determined under job site conditions may deviate from the stated values.

Please always use the latest version of this data sheet available from our website [www.velosit.de](http://www.velosit.de).

## **Effective date**

July 2016

## **Manufacturer**

VELOSIT GmbH & Co. KG  
Industriepark 7  
32805 Horn-Bad Meinberg  
Germany