vdw 480 – Bedding Compound



High-quality, polymer-modified bedding compound containing trass for the easy production of free-draining base layers or free-draining bedding mortar for laying paving and slabs outdoors.

for light to medium traffic loads

permeable to water

early pedestrian access and loading

GftK

Quality for Professionals

Further properties









• pleasant consistency and no tearing when spreading	➡	easier working, hardly any build-up on the screeding tool and therefore rapid progress on site
• high strength	➡	up to 30 N/mm² possible
• very high yield	➡	At a mixing ratio of 1:6 for load class N3 or 1:8 for load class N1 of the ZTV-Wegebau
• rapid hardening	➡	walkable early, can be jointed 24 h after installation
• optimised formula	➡	no efflorescence despite the rapid hardening
• capillary-passive effect thanks to high-grade polymer modification	➡	prevents rising capillary moisture with fine chipping gradings

Technical Data

Product description
vdw 480 Bedding Compound is a special binder for producing free-draining bedding mortars.

Composition:	Cement to EN 197, trass to DIN 51043 and special additives
Packaging:	25 kg bag

Material data
If the mixing ratio of 1:4 with quartz sand 2/4 and **vdw 480 Bedding Compound** is observed, together with an added water content of 6 % of the total mortar quantity (7.5 litres for 125 kg), the following material data are achieved.

Flexural strength:	approx. 7.0 N/mm²
Compressive strength:	approx. 30.0 N/mm²
Water permeability:	highly water-permeable
Storage life:	1 year, dry and frost-free in the sealed original packaging

Application data

Pot life:	90 minutes at 20 °C object and ambient temperature
Outside temperature:	min. + 5 °C to max. 25 °C
Substrate temperature:	min. + 5 °C to max. 25 °C

Ecology

Water hazard class:	Class 1 – slightly hazardous to water
Disposal:	Waste code 170101, 101314

With these notes we wish to advise to the best of our knowledge on the basis of our tests and experience. Because of the many possible applications and the storage and application conditions of our products, which are beyond our control, we cannot however accept any warranty for the work result in individual cases. Carry out your own tests. Our technical advisory service is always available at Technik@gftk-info.de. Subject to change.

Please always refer to our detailed brochure “Application Technology Notes”. You can request it from your dealer or directly from us!

No direct legal liability can be derived either from the notes in this product information or from verbal advice, unless the content of the advice is expressly confirmed by us in writing. With the publication of this product information all previous versions become invalid.

Rheinbach-Flerzheim, March 2022

Application

You will find further information in this application video



Suitable aggregate ...



... and premix the corresponding quantity of vdw 480



Add max. 6 % water



apply the mortar and screed it off over guide rails



set the paving with a hammer



For slabs, apply vdw 495 Universal Adhesive Slurry to the underside



follow the curing notes!

Product properties:

vdw 480 Bedding Compound serves as a special binder for producing free-draining bedding mortars. The compound has been tailored specifically to the needs of the applicator. Unlike ordinary trass cement, this system consists of several special binders and additives. Thanks to the use of various premium cements, beddings produced with **vdw 480 Bedding Compound** reach a very early initial strength. Together with **vdw 495 Universal Adhesive Slurry** this creates a system that can be overworked with jointing mortar after only 24 h. A special composition of the compound allows a higher mixing ratio, which gives an economic advantage as well as a consistently high strength of the bedding. The “encapsulation” of the aggregate to be bound with the special binder prevents capillary suction in the bedding. Rising moisture in the bedding can therefore be avoided above all with fine grading curves (e.g. 2-5 mm).

Requirements:

Sub-base and base layer must be sufficiently level, load-bearing and able to drain water away. They must be dimensioned so that no harmful deformation occurs. Drainage must be ensured by a free-draining substrate or by a sufficient drainage fall, if necessary in combination with a drainage mat, min. 2.5 %. Ambient and substrate temperature > 5 °C, max. 25 °C. Application should take place in dry weather.

Suitable mineral aggregates:

E.g. basalt chippings or quartz sand grades 2/4 mm, 2/5 mm, 2/8 mm or 5/8 mm for **vdw 480 Bedding Compound**.

Mixing the bedding compound:

Following the specified mixing ratio, place the mineral aggregates in a forced-action mixer or free-fall mixer and add **vdw 480 Bedding Compound**. Allow to premix thoroughly. Then add water until an earth-moist mix is obtained, max. 6 % of the total mortar quantity. **Please allow for the inherent moisture of the aggregate used.**

Installation:
Apply the mixed bedding mortar by hand in a layer thickness that gives a compacted thickness of min. 4 cm to max. 10 cm. With dimensionally accurate paving or slabs (concrete block, calibrated material) the bedding mortar can be set to the required layer thickness using screed rails. Bed the paving firmly into the bedding mortar with a hammer. To improve adhesion we recommend dipping the setts in **vdw 495 Universal Adhesive Slurry** before jointing. When laying slabs, apply **vdw 495 Universal Adhesive Slurry** to the underside of the slab. The joint area must be permeable to water and therefore also free of **vdw 495 Universal Adhesive Slurry**.

Loading and jointing:
The following points refer to a temperature of 20 °C and 65 % relative humidity (high temperatures shorten, low temperatures lengthen the curing time). Areas produced with **vdw 480 Bedding Compound** can be walked on and jointed with **vdw paving or slab jointing mortar** after 24 hours at the earliest, or once the mortar has hardened. Full loading after 7 days.

Curing:
The installed bedding mortar must be protected against drying out too quickly; strong heat and draughts are to be avoided. Immediately after installation the bedding mortar must be protected against drying out for a sufficient period, but for at least 24 hours.

Application notes

In constructions on drainage mats with open paving edges (e.g. balconies & roof terraces) the bedding mortar must be completely dry before jointing, as otherwise leaching from the bedding layer can cause efflorescence on the edge profile.

Sufficient drying through is only ensured after at least 3 days.

Mixing ratio / Compressive strengths

Compressive strengths	Mixing ratio vdw 480 Bedding Compound to			
	Quartz sand 2/4	Chippings 2/5	Chippings 2/8	Chippings 5/8
> 10 N/mm²	1:6	1:6	1:6	1:5
	Consumption vdw 480 approx. 2.4 - 2.8 kg/m²/cm layer thickness *			
> 20 N/mm²	1:5	1:5	1:5	1:4
	Consumption vdw 480 approx. 2.8 - 3.4 kg/m²/cm layer thickness *			
> 30 N/mm²	1:4	–	–	–
	Consumption vdw 480 approx. 3.4 kg/m²/cm layer thickness *			

* The consumption figures given are calculated with a bulk density of the ready-mixed mortar of 1.7 kg/l, which corresponds to a consumption of 17 kg/m²/cm layer thickness. Please allow for the density of the aggregate actually used.

vdw Mortar Systems

for concrete, natural stone, ceramic and clinker paving



How to reach us:

Write to us or give us a call:

contact@gftk-info.de

We are glad to support you with your project!

Gesellschaft
für technische Kunststoffe mbH
Kottenforstweg 3
D-53359 Rheinbach-Flerzheim

Phone: +49 (0) 22 25 / 91 57-0

mail@gftk-info.de
www.gftk-info.de