

# **VDW 480**

## Frost Resistant Drainage Mortar

VDW 480 is an excellent solution for a permeable bedding system that is frost-resistant and provides structural support for paving stones.

- · For medium to heavy traffic loads
- Prevents frost damage
- · No efflorescence
- Highly water permeable
- Compressive strength 35 N/mm²odd





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#### **Technical Data**

#### **Application Time**

Approx. 1 hr at 20°C | 68°F application temp.

#### **Application Temperature**

5-25°C | 41-77°F (Do not lay onto frozen ground.)

#### **Material Requirement**

Approx. 18,5kg | 40.8 lbs. of ready mixed bedding mortar per cm layer thickness/ $m^2$  = approx. 3,7 kg | 8.2 lbs. VDW 480 - Trass-bedding compound

#### **Water Addition Approximation**

11 litres | 2.9 gal of water per 25 kg | 55 lbs. bag/mortar mixture

#### **Compressive Strength**

20–38 N/mm $^2$  / 2900–5500 psi 3 and 28 days (dependent on filler material)

#### **Bending Tension Strength**

Set mortar density: 1,62 g/cm<sup>3</sup>

#### **Water Permeability Coefficient**

 $\geq$ 14,2 x 10-5 m/sec | 20.1 iph (dependent on filler material)

#### **Low Chromate**

Yes

#### Storage Life

12 months, dry and in original sealed container

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# **Assembly Instructions**

for VDW 840 Trass Bedding Compound

### 1. Construction Site Requirements

The subsurface needs to be made load bearing, firm and water permeable. Water impermeable load distribution layers (screeds), such as areas with house utility connections as well as any slab coverings that are laid, need to have a slope of at least 1,5–3,0%. Any water that gathers needs to be drained with corresponding drainage measures. In case of any watertight outdoor areas and levels where water flows and partial puddles form, it is recommended installing a suitable capillary-breaking drainage mat.

## 2. Recommended Mixing Ratio

1 volume part VDW 480 - TRASS BEDDING COMPOUND

**Example 1:** 11 litres | 2.6 gal4 volume parts filler material (i.e. rolled grit/gravel 4–8 mm) | 1/8" - 3/8"

**Example 2:** 40 litres | 10.6 gal

Mixing: Mix VDW 480 - TRASS-BEDDING COMPOUND in a ratio of 1:4 with filler material (i.e. rolled grit/gravel 4–8 mm | 1/8" - 3/8") so that it is earth damp, mixing time 2–3 minutes. Water requirement approx. 11 litres | 2.9 gal of cool, clean water per used 25 kg VDW 480 - TRASS BEDDING COMPOUND. To do this, mix VDW 480 - TRASS BEDDING COMPOUND with filler material and first add approx. 9 litres | 2.4 gal of water. Keep adding water to the mix until the mortar mixture is slightly shiny and can be rolled into a firm ball. Mix using a pug mill mixer or gravity mixer. For smaller amounts, mixing can be done in a wheelbarrow or mortar tub. After mixing, the mortar is ready for immediate use. Where possible, use the entire container, otherwise weigh the exact amounts needed.

### 3. Application

The thickness of the bedding mortar, should generally be 4-10 cm | 1 1/2" - 4" deep depending on expected loads (load classification / usage category) and stone. (Exception is mixed construction method for usage category ASTM path construction with a thickness of "10 cm | "4".) Lay the ready mixed bedding mortar loosely. The connection elements to be used are pre-treated with VDW 495 - ADHESION ELUTRIANT and laid at the correct height and hammer-hard into their final position. When filling the joints, at least 3 cm | 1 1/4" joint depth from the top edge of the stone is required, in case of traffic loads at least 2/3 the height of the stone. Subsequent treatment: After laying, protect the surface with a sheet. After 24 hours lightly spray with water and cover again for 48 hours. Until the bedding mortar has reached it's full strength, the surface should not be used. In case of bad weather conditions, this may take a longer time.

## 4. Important Information

After 48-72 hours, depending on weather and mortar consistency, jointing using PHNA/GFTK paving joint mortar can be carried out. After 3 days the surface can be walked on, after 10 days it can be driven on by vehicles up to 3,5t (private surface), after 28 days it is fully load bearing. In general all connecting elements should be treated with VDW 495 ADHESION ELUTRIANT before laying onto the bedding mortar.