vdw 850

Epoxy Paving Joint Mortar (Self-Compacting)

High performance for small format paving with medium to high traffic loads

For natural stone, reconstituted stone and concrete block paved surfaces on driveways, roads and other trafficked paved areas, including those used by delivery vehicles etc.

- Fast, durable, cost effective
- Easily flow applied
- Low temperature application (min. +3 °C / +37,4 °F)
- Can be applied in the rain
- Self-compacting
- Clean, stain free surfaces
- Water permeable
- Optimum strength correlation
- Mechanical sweeper resistant
- Excellent abrasion resistance
- Frost and de-icing salt resistant
- No weeds or boring insects
- Environmentally friendly
- Also ideal for paving refurbishment

- sand
- stone grey
- basalt (dark grey)

Quality for professionals

Can be applied in the rain with no additional protection required!

GftK

GftK-international GmbH
Kottenforstweg 3
D-53359 Rheinbach-Flerzheim

Phone: +49 (0) 2225 / 9157-26
Fax: +49 (0) 2225 / 9157-49
info@gftk-international.com
www.gftk-international.com

Product and Application Information

Site requirements: A stable, load-bearing structure, a water permeable sub-base and the paving layer must all be correctly designed and installed for the anticipated traffic loads and in accordance with the requirements of **BS 7533**. **vdw 850** is a paving joint mortar and cannot be used to compensate for any settlement of the substructure, or for the sealing and waterproofing of any surface. It is not normally used on larger format paving slabs as it is relatively fast curing. Movement joints must be installed as necessary to comply with the required structural design and any anticipated levels of movement. The **vdw 850** mortar can be applied on damp / wet paving and in high humidity and – even in the rain.

In pedestrian areas: In these areas it is acceptable to lay the paving on a compacted and stable, permeable sand or gravel bed. However, it is always better and more durable to lay paving in a permeable concrete or mortar bed, otherwise increased cracking may occur. The paving should be laid as directed by the manufacturer or as stated in **BS 7533**.
In areas of vehicular traffic: To prevent increased crack formation in the joints, the paving should be laid on a permeable concrete or mortar bed in accordance with the relevant traffic loads and **BS 7533**.

Joint depth: Min. 30 mm. In areas of heavy or frequent vehicular traffic the total joint depth of the bedded paving units should be used.
Joint width: Continuously min. 5 mm. In areas of heavy or frequent vehicular traffic with joint widths greater than 15 mm, the joint depth must be at least twice the joint width.
Application conditions: The ambient and substrate temperatures should be min. 3 °C / 37,4 °F and max. 25 °C / 77 °F. The vdw 850 material temperature should be min. 3 °C / 37,4 °F and max. 20 °C / 68 °F.

Tools: A compulsory forced action mixer or a drill with suitable mixing paddle(s) for smaller projects. Water supply, a hose with spray nozzle, a squeegee and a coconut fibre brush. Uncured mortar can be cleaned from the tools with water.

Test area: On some reconstituted or sensitive natural stone paving, the **vdw 850** binder contact can make the stone appear darker or to have a 'wet look'. These effects are not defects in the product or shortcomings in the execution of the work. **Therefore always apply a test areas first!**

Preparation: Clean the surface of all dirt, cement residues, organic materials, or any other contaminants, including cleaning out all of the joints to the required depth.

Pre-wetting: Fully saturate the paved surface before starting the application and ensure this condition is maintained throughout the work. The amount of wetting required is related directly to the type and porosity of paving and the site conditions i.e. wind, direct sunlight and temperature etc.

Mixing: Pre-mix the **vdw 850** resin coated aggregate (component A) materials in the pail. Then add all of the **vdw 850** liquid hardener (component B) in the bottle included in the pail and mix until smooth and a fully homogeneous consistency.
Mixing time: min. 3–5 minutes. No water should be added to the material during mixing. Any unmixed components must not be used!

Filling the joints: Spread the mortar across the paved surface using a rubber squeegee and work thoroughly into the joints, where it self-compacts. We recommend filling the joints from the highest to the lowest points.

Brushing off: Remove any excess **vdw 850** mortar after approx. 5 minutes or immediately at temperatures higher than 15 °C / 59 °F, then rinse by spraying lightly with water from a hose at a distance of about 25 cm. Avoid washing material out of the joints. Be careful to clean the paved surface towards areas not yet jointed and do not allow any water containing residues to pond, stand, dry-out or run-off over completed areas. Finally remove any remaining fine residues, again with a damp coconut fibre brush – do not brush any residual dry material into any unfilled joints. Clean this brush in water frequently. Do not brush any dry mortar residue into unfilled joints.

Chamfered edges must also be brushed free! Cured mortar can only be removed mechanically from the surface.

All times and timings relate to a temperature of 20 °C / 68 °F and 65% relative humidity. Higher temperatures will reduce, whilst lower temperatures will increase them.

Cordon off the freshly applied areas for a period of at min. 24 hours or until the paving surface is no longer tacky. Then the areas can be walkded over. The area can be fully opened to vehicular traffic after 3–5 days, when fully hardened. In general, a strength test should be carried out before final opening of the area.

A very thin film of the resin binder can remain on rough surfaces, or any surfaces that are not thoroughly cleaned. This will disappear after a period of exposure to traffic and weathering. To reduce these effects, please use **vdw 950 Stone Protect Plus 3 in 1** as a pre-treatment of the paving.

Consumption: The consumptions stated in the table below refer to areas of natural stone setts with cropped edges and has been compiled from our experience. There is no allowance for any loss or wastage, etc. The natural shape of setts and different paving designs may result in variations to these values. If in doubt, determine actual consumption based on a test area. The joint depth in all of these examples is 30 mm.

	Dimensions in mm		Approx. kg/m², for joint widths		
	Width	Length	5 mm	10 mm	15 mm
Cubes	40	40	11,3	20,4	27,8
	50	50	9,3	17,0	23,5
	40	60	9,6	17,5	24,1
Small setts	100	120	4,5	8,6	12,3
	100	100	4,9	9,3	13,3
	80	100	5,4	10,3	14,7
	60	80	6,9	13,0	18,3
Larger setts	160	180	2,9	5,7	8,3
	140	180	3,1	6,1	8,9
	120	180	3,6	6,9	10,0

Key technical values: All **GftK** paving joint mortars are designed to have the ideal correlation between their compressive and flexural strengths, plus their modulus of elasticity values, according to their recommended areas of use. **vdw 850:**

Density (fresh): 1,7 g/cm³
Density (cured): 1,6 g/cm³
Flexural strength: approx. 10.0 N/mm²
Compressive strength: approx. 25.0 N/mm²
E-Modulus: 5500 N/mm²
Permeability: $0{,}15 \cdot 10^{-3}$ m/s (1,8 l/min/m² at 20% joints)
Storage: 1 year in original, unopened, sealed and undamaged packaging, kept dry and frost-free. **Do not store over 20 °C / 68 °F.**
Packaging: 25 kg (plastic pail)

Safety information: When using **vdw 850** avoid contact with skin and suitable PPE. Keep away from children. There should be sufficient ventilation when working in enclosed spaces. Unmixed and uncured material requires disposal as special waste. Mixed and cured material is inert and does not require special disposal.

The information on this Technical Data Sheet (TDS) is intended to give advice based on our testing and experience. We cannot guarantee results in any individual circumstances due to the variety of potential situations and the storage and application conditions for our products which are beyond our control. Specific project testing should be carried out where required. The information on this TDS is subject to amendment and the user must ensure they have the latest information. Our General Conditions of Sale and Supply apply.

Contact:

Rheinbach-Flerzheim, january 2013