vebro polymers

vebrocrete PU MF *(pf)*™ (4-Pack)

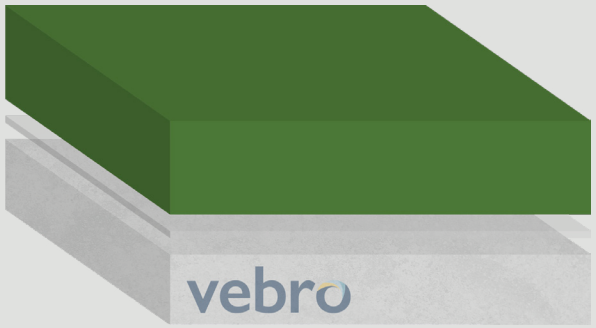
3.0 – 4.0 mm

vebrocrete PU MF *(pf)*™ is a phthalate-free medium duty, flow-applied polyurethane concrete material with a smooth, matt finish.

vebrocrete PU MF *(pf)*™ can also be used as a moisture barrier to dissipate rising moisture, protecting subsequent resin flooring systems.

vebrocrete PU MF *(pf)*™ provides an impact resistant surface with resistance to abrasion, chemical attack, and other forms of physical and mechanical based surface activity. The material is resistant to organic acids, dilute mineral acids, vegetable and animal fats, petroleum oils and solvents.

vebrocrete PU MF *(pf)*™ is used in medium-duty industrial applications subject to chemical exposure and pedestrian / forklift traffic. The material has been designed for use in the food sector, and is HACCP International certified as food-safe.



Component	Weight
vebrocrete Universal A *(pf)*™	2.85 kg
vebrocrete Universal B *(pf)*™	3.15 kg
vebrocrete Filler C #1	13.82 kg
vebrocrete Pigment Pack D	0.18 kg
Total Unit:	**20.00 kg**

Specific Gravity

1.90 g/cm³ @ 25°C

Working Time

~15 – 20 minutes @ 25°C (usable working life of material following mixing and immediate spreading as per the application instructions).

Coverage

The recommended coverage of **vebro**crete PU MF *(pf)*™ is 5.70 kg/m² at 3.0 mm or 7.60 kg/m² at 4.0 mm.

vebrocrete PU MF *(pf)*™ requires priming, use **vebro**crete PU MF *(pf)*™ unpigmented at approximately 1.90 kg/m².

These coverages are theoretical and may vary due to a number of factors including the condition of the substrate. A recommended 5% wastage addition is advised on all orders.

Overcoating Time

~12 – 24 hours @ 25°C (some mechanical preparation may be required).

Speed of Cure

- Light Foot Traffic – 12 hours
- Light Wheeled Traffic – 24 hours
- Heavy Duty Traffic – 48 hours
- Full Chemical Cure – 7 days

Storage & Shelf Life

All components should be stored off the ground, in a cool dry area, away from direct sunlight between 10 – 30°C. 12 months in the closed original container

Note

All new (pf)™ material and / or components should not be mixed with any of the legacy **vebro**crete (non-pf) material. This could lead to serious complications with the rendered surface for which we assume no liability.

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FeRFA

EN 13813 SR-B2, 0-AR0,5-IR20

Phthalate-Free *(pf)*™

vebrocrete systems have been reformulated in order to remove phthalates and other LBC Red List 'worst-in-class' classified materials from the chemical composition of the materials. Phthalates are endocrine-disrupting chemicals that can be toxic and pose serious health and safety risks to both those installing the materials and those using the cured flooring surface. **vebro**crete *(pf)*™ materials eliminate this risk.

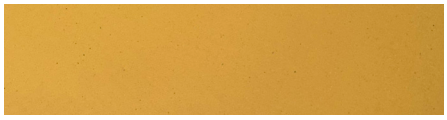
HACCP Certification

vebrocrete systems have been HACCP International certified as food-safe for use in facilities operating a food safety management system based on HACCP principles. These systems are seamless, monolithic, impervious and non-porous, as such they do not support microbial growth.

Colours

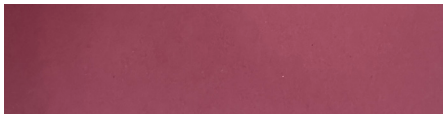
Light Grey

Dark Grey



Yellow

Blue



Red

Green

Please note, the applied colours may differ from the examples shown. **vebro**crete systems may exhibit a yellowing effect over time resulting from thermal, UV or chemical exposure. This will be more pronounced on light grey or blue shades.

Typical Properties

BS 8204-6 (FeRFA)	Type 7	
Temperature Resistance	Resistant to cleaning processes up to 70°C at of 3.0 mm and 90°C at 4.0 mm	
Reaction to Fire	AS ISO 9239,1-2003	CHF Value (Non-Directional) >10.7 kW/m^2 Smoke Value (Non-Directional) 55 %-min
Co-efficient of Thermal Expansion	ASTM C531	5.8 x 10^{-5}/°C
Slip Resistance	TRLL Pendulum Slip Test DIN 51130	Dry > 70, Wet >21 R9
Abrasion Resistance	EN 13892-4 BS 8204-2	AR 0.5 Special Class
Shore D Hardness	80 after 28 days	
Impact Resistance	EN 13813	> 4 Nm (IR4)
Compressive Strength	EN 196 / ASTM C109	50 N/mm^2
Flexural Strength	EN 196 / ASTM C109	20 N/mm^2
Tensile Strength	BS 6319-7	10 N/mm^2
Adhesion	EN ISO 4624	> 1.5 N/mm^2
Low Emissions	ISO 16000-3, 6, 9 and EN 16516	Compliant
VOC Content	2.71 g/l	
Phthalate Content	CPSC-CH-C1001-09.4	ND (39 Compounds)

The typical physical properties given above are derived from testing in a controlled laboratory environment at 20°C. Results derived from testing field applied samples may vary dependent upon site conditions. The slip resistance figures given above are affected by application techniques and prevailing site conditions. Slip resistance can reduce over time due to poor maintenance, general wear or surface contaminants. Good housekeeping practices should be observed.

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CE EN 13813 SR-B2, 0-AR0,5-IR20

Application Temperature Range

~10 – 30°C is recommended. Outside of this range, heating or cooling equipment should be used to achieve ambient conditions.

The substrate, before priming, should be at least 3°C above the dew point to reduce the risk of condensation or blooming. This should be maintained for 48 hours after application.

Substrate Requirements

vebrocrete systems are suitable for application on cementitious substrates and suitable polymer modified screeds.

All substrates should be capable of bearing loads, free of cracks and voids as well as free from laitance, dust and other contamination including dirt, oil, grease, coatings, and surface treatments.

The substrate should be sound with a minimum compressive strength of 25 N/mm^2 and a minimum tensile strength (pull-off) of 1.5 N/mm^2.

Substrate Preparation

Concrete or suitable polymer modified screed substrates should be mechanically prepared using captive vacuum enclosed shot blasting, or by appropriate diamond grinding to remove surface cement based laitance and previous surface treatments leaving an open textured mechanically prepared surface.

Weak concrete / polymer modified screed must be removed and repaired using recommended Vebro Polymers' products. In order to ensure the installed system remains fully bonded to the substrate it is recommended that all terminating edges are rebated to produce a cross-section "anchor chase" of 5.0 mm deep by 5.0 mm wide, stepped out at 150.0 mm from and parallel with the walls i.e. day joints, movement joints, floor edges, door thresholds, upstands, plinths, etc.

Application Instructions

Priming

Priming of the substrate is required, scratch-coat the surface with **vebro**crete PU MF (pf)™ unpigmented at 1.90 kg/m^2.

For non-ground resting slabs, **vebro** EP Primer can be used at 0.25 kg/m^2 providing the substrate moisture is no greater than 75% RH.

Allow to cure 12 to 16 hours before applying the **vebro**crete PU MF (pf)™ screed.

Please note, if the surface is excessively porous it may be necessary to apply subsequent coats of the priming material until the substrate is fully sealed.

Mixing

The contents of the **vebro**crete Pigment Pack D should be drained into the **vebro**crete Universal A (pf)™ component and the two materials thoroughly mixed until homogeneous before adding the contents of **vebro**crete Universal B (pf)™.

Don't forget!
You're using **vebro**crete Filler C #1 in this mix!

The mixed liquid should then be poured into a clean suitably sized separate mixing container and the **vebro**crete Filler C #1 aggregate component slowly added under constant mixing using a suitable slow speed electric mixer fitted with either a single or double mixing paddle or by using a forced action (rotary drum) type compulsory mixer until a uniform free flowing consistency has been achieved.

Application

Apply the mixed **vebro**crete PU MF (pf)™ screed by serrated / notched trowel, or pin rake to the required thickness.

Within approximately 10 minutes roll the **vebro**crete PU MF (pf)™ with a spike roller to de-aerate the material. When the material is sufficiently cured existing joints in the substrate must be carried through into the **vebro**crete finish.

Ensure to maintain continuity of wet material between pours (max. 5 – 7 minutes). For cleaning of tools and other contaminants use **vebro** Tool Cleaner.

Overcoating

Overcoating should be carried out within 24 hours of application. If longer than 24 hours it will be necessary to lightly grind the surface by mechanical means before overcoating is carried out.

FeRFA

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Application Notes

Please note…

- The installed floor should be protected from other trades using Kraft paper or similar breathable material e.g. Correx sheet. Polythene should not be used.
- Protect the installed floor finish from damp, condensation, and water for at least 24 hours at 20°C.
- Ensure that the ambient temperature remains above 10°C for at least twenty-four hours after installation.
- As with all aromatic based polyurethane products light colours exposed to UV light, **vebro**crete systems will be prone to cosmetic discolouration (yellowing of the surface), however this does not affect the physical or chemical resistance properties of the installed product.

Please note… vebrocrete PU MF can be used as a binder for terrazzo and polished systems, designed to be used with appropriate aggregates and sealers. Please contact Vebro Polymers for further information.

Cleaning & Maintenance

The cleaning and maintenance of **vebro**crete systems must be considered a vital and integral part of an overall hygiene program covering all areas of the processing plant. Regular cleaning and maintenance will ensure that the floor maintains the performance profile listed below.

The method of cleaning and choice of cleaning equipment and / or agent should match the soil conditions and level of sanitation required.

All **vebro**crete systems will withstand water wash down processes at continuous sanitising temperatures as well as fumigation. **vebro**crete PU RT (pf|) can be cleaned routinely by the direct application of a water-steam mix.

Further Information

Information relating to the safe handling of this product can be found in the Material Safety Data Sheet. Local regulations concerning the safe handling of resin based coating materials must be observed. Suitable protective clothing including suitable eye protection must be worn at all times.

All consumptions listed are for recommendation purposes only. Detailed application instructions and system build-up advice can be provided on request through our Technical Services team.

Vebro Polymers' systems and products are guaranteed against defective material and manufacture and are sold subject to its standard Terms and Conditions of Sale, copies of which can be obtained on request.

Vebro Polymers accepts no responsibility for liability claims based on the suggested practices and data values listed on product data sheets. Product data sheets are regularly updated and it is the user's responsibility to ensure they obtain the most recent version. The most recent versions can be found at www.**vebro**polymers.com

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