

v-Screed

v-Screed is an additive, used in Portland cement, sand and aggregate screeds to produce early drying, high strength screeds, with standard and heavy duty mix designs. Additionally, a proprietary polymer modified high compressive strength variant is also available as v-Screed HDP.

v-Screed is suitable for high traffic areas where a high strength (Category A) screed is required – especially where thin finishes such as carpet, vinyl, wood or resin are to be used – including airports, shopping centres, and hospitals. Generally, a smoothing compound will be required on top of the screed prior to a thin vinyl being applied, whereas carpet is more forgiving.

v-Screed is also ideally suited to fast track construction and refurbishment projects where the screed needs to be trafficked (by follow-on-trades) or overlaid quickly. A final floor finish, such as vinyl, carpet, wood or tiles is required

v-Screed (Heavy Duty Mix) is recommended in areas with heavy trafficking, requiring Category A soundness, such as airport terminals, hospital concourses, operating theatres and X-ray suites, stock rooms, lift lobbies, plant rooms and plant rooms.

v-Screed (Heavy Duty Mix) is also suitable for areas in commercial buildings that will receive resin floor finishes (except polyurethane concrete finishes).

For v-screed HDP, **vebro**screed SBR – a polymer Styrene Butadiene Rubber (SBR) 50% solids liquid additive – is added. v-Screed HDP is designed for car parking use as well as areas where a pumped screed with higher compressive strength is required. The screed can receive the full range of **vebro**deck resin based car park coatings, but can also be specified to receive the same type of floor finishes for v-Screed (Standard Mix) and v-Screed (Heavy Duty Mix). For more information, please see the separate v-screed HDP specifications.

For industrial or car park specific screeds, consult Vebro Polymers for appropriate screed specifications.

Liquid Mixture

Consumption

Size 1:

200.0 g sachet
per 25.0 kg bag cement

Size 2:

2 × 200.0 g sachets (400.0 g)
per 50.0 kg bag cement

Application Temperature

10 – 25°C

Packaging (Unit Sizes)

16.0 kg box
(80 × 200.0 g sachets)

Colour

Unpigmented

Shelf Life

12 months in original
unopened pack / sachets.

Storage

Storage temperature between
6°C and 25°C. Protect from
weather and moisture /
contaminant ingress.

Working Time

15 – 20 minutes upon
completion of mixing

Foot Traffic

Light foot traffic in 24 hours

Overcoating Window

Can be overlaid after 7 days
per 25.0 mm screed thickness

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.

Minimum Thicknesses

The following are the recommended minimum thicknesses for the laying of v-Screed. They are the minimum permitted at any point on the floor and additional thickness should be allowed to cater for slab level tolerances, precast plank cambers etc.

It is recommended that v-Screed laid in hospitals be a minimum of 40.0 mm thickness (unless laid on 1 or 2 coats of **vebro** EP DPM Plus when the minimum thickness can be reduced to 30.0 mm).

Bonded

	v-Screed (Standard Mix)	v-Screed (Heavy Duty Mix)
On prepared in-situ concrete	20.0 mm	40.0 mm
On precast or beam & block	30.0 mm	40.0 mm
Bonded with vebro EP DPM Plus	15.0 mm	30.0 mm

Unbonded

Reinforced with 6.0 mm crimped monofilament Polypropylene Fibres or D49 steel mesh fabric.

	v-Screed (Standard Mix)	v-Screed (Heavy Duty Mix)
On a separating layer or a substrate unprepared for bonding.	40.0 mm	40.0 mm

Floating

Reinforced with 6.0 mm crimped monofilament Polypropylene Fibres or D49 steel mesh fabric.

	v-Screed (Standard Mix)	v-Screed (Heavy Duty Mix)
Laid on 5.0 – 10.0 mm extruded polyethylene sheet (or similar) impact sound insulation.	40.0 mm	40.0 mm
20.0 mm rigid insulation board	45.0 mm	45.0 mm
25.0 mm rigid insulation board	50.0 mm	50.0 mm
30.0 mm rigid insulation board	55.0 mm	55.0 mm
35.0 mm rigid insulation board	60.0 mm	60.0 mm
40.0 mm rigid insulation board	60.0 mm	60.0 mm
50.0 mm rigid insulation board	65.0 mm	65.0 mm
75.0+ mm rigid insulation board	75.0 mm	75.0 mm
150.0+ mm rigid insulation board	-	100.0 mm

The screed thicknesses above dependent on insulation boards able to support the transmitted imposed loads q_k and Q_k of the NA to BS EN 1991-1-1.

NB:- The load carrying capabilities of any screed laid in floating construction on thermal and/or acoustic insulation is dictated by the strength of that insulation.

It is the responsibility of the appropriate project consultant to take into account the design imposed loads q_k and Q_k of the NA to BS EN 1991-1-1 and their distribution through to the insulation to ensure that the design strength of the insulation is not exceeded. This assessment should include any temporary loading from site construction or end user access equipment. It is advised that any compression of the insulation, under loading, should not exceed 1.5 mm.

Failure to carry out this assessment may lead to over compression of the insulation and excessive deflection of the screed leading to cracking and possible collapse.

Stairs

	Minimum thickness
Onto prepared concrete	Treads: 20.0 mm Risers: 20.0 – 30.0 mm
Into steel tray stairs bonded with vebro EP DPM Plus primer	20.0 mm (typically 40.0 mm)

Cover to Pipes, Conduits & Trunking

	Minimum thickness
Over a single pipe or conduit	20.0 mm
Over trunking & multiple conduits	25.0 mm
Over UFH pipes/clips	35.0 mm

Mix Proportions by Weight

Materials per m ³ (dry weights)	v-Screed (Standard Mix)	v-Screed (Heavy Duty Mix)
Cement	300.0 kg	300.0 kg
Screeding sand	1,500.0 kg	1,150.0 kg
5.0 mm or 6.0 mm aggregate	-	350.0 kg
v-Screed	2.4 kg (12 sachets)	2.4 kg (12 sachets)

Water is added to give the correct workability as judged by the standard “snowball test”, (BS 8000-9).

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Mix Proportions by Volume

Cement is measured by full bag (50.0 kg or 25.0 kg) or by full 15 litre (nominally 3 gallon) bucket.

Sand and aggregates are batched to give an overall mix of 1-part cement to 4-parts total dry aggregate (by volume). The applicator may determine the method of measuring the aggregate to achieve an accurate volume batch. Suitable methods include gauging by 15 litre buckets or by gauge boxes. If shovelling is used, it must periodically be checked and demonstrated to give a correct volume batch. The 'bulking' of sand due to changes in moisture content should be considered when batching.

General Notes

All screeds more than 75.0 mm thickness should be batched with the Heavy-Duty v-Screed or v-Screed HDP mix (25% of sand replaced by coarse aggregate).

In any mix containing coarse aggregate, the exact proportion of sand to coarse aggregate may be varied if the grading of the sand used makes it impossible to achieve a suitable closed screed surface. However, the proportions should not be varied unless it has proved impossible to achieve a suitably closed surface of the resulting screed.

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 epoxy 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.

For the long-term maintenance of the properties of polymer flooring materials, a regular cleaning and care programme is recommended.

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. For more information, please refer to individual product data sheets or contact our Technical Services team.

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