

## v-Cem

### fibres-modified cement binder

v-Cem is mixed with graded aggregates and water to produce a rapid drying, high strength, shrinkage-compensated screed laid at depths between 10.0 mm – >55.0 mm prior to the installation of commercial floor coverings such as carpet, ceramic and terrazzo tiles, laminate, wood and vinyl as well as thick coverings or hard wearing resin finishes.

v-Cem can be used to form screeds that are bonded, unbonded and floating screed applications. The material can be used as a retaining screed for underfloor heating systems. v-Cem is suitable for use in both internal and external applications.

v-Cem will harden to receive ceramic tiles in as little as 24 hours. The material will dry in 4 days to receive resin finishes after other resilient floor coverings. The material is manufactured to BS 8204-1 and is suitable to achieve Category A, B & C screeds.

### how much v-Cem do I need?

v-Cem (Category A Standard Mix) Recommended Mix / m <sup>3</sup>	
v-Cem	100.0 kg
< 8.0 mm graded aggregate	360.0 kg
Water*	20.0 ltr

v-Cem (Category B Standard Mix) Recommended Mix / m <sup>3</sup>	
v-Cem	100.0 kg
< 8.0 mm graded aggregate	500.0 kg
Water*	20.0 ltr

\* Note: Water addition may vary depending on moisture content of the aggregate being used.

### Features

- ✓ Light foot traffic in 12 hours
- ✓ Ceramic tiles in 24 hours
- ✓ BS 8204-1 Surface Regularity
- ✓ Suitable to achieve Category A, B & C screeds
- ✓ Apply bonded (> 10.0 mm), unbonded (> 35.0 mm) and floating (> 55.0 mm)
- ✓ Suitable for use with underfloor heating systems
- ✓ Suitable for internal and external use

### Applications

- ✓ Mixed Use, Multi-Occupancy Buildings
- ✓ Shopping Centres & Retail Parks
- ✓ Healthcare Facilities
- ✓ Schools, Colleges & Universities
- ✓ Commercial Office Buildings
- ✓ Airports, Transport Hubs & Stadiums

## Technical Profile

Performance Criteria		
<b>Compressive Strength</b>	BS EN 13892-2	1 day: 8 N/mm <sup>2</sup> 4 days: 14 N/mm <sup>2</sup> 7 days: 20 N/mm <sup>2</sup> 28 days: 30 N/mm <sup>2</sup>
<b>Flexural Strength</b>	BS EN 13892-2	1 day: 3 N/mm <sup>2</sup> 4 days: 4 N/mm <sup>2</sup> 7 days: 5 N/mm <sup>2</sup> 28 days: 6 N/mm <sup>2</sup>
<b>Hand Mixing</b>	Water addition 8.0 ltrs cold water and 140.0 kg aggregates per 20.0 kg bag of v-Cem	
<b>Application Temperature</b>	5 – 35°C	
<b>Speed of Cure (at 20°C)</b>	Working Time – up to 60 minutes	Ceramic Tiles – 24 hours
	Light Foot Traffic – 12 hours	Resin Finishes – 4 days

All curing and drying times are based on applications in good ambient conditions of 20°C, 65% air humidity and good ventilation. cold, humid or damp sites, or those with poor airflow, will prolong curing and drying times, adequate allowances should be made in these scenarios.

v-Cem can be laid either bonded, unbonded or floating, determined by the substrate type. Bonded screeds must be laid on to a suitably prepared substrate. Unbonded screeds are those laid on a separating layer or preformed damp proof membrane. Floating screeds are those laid on to an insulation board.

The residual moisture content of the screed should be evaluated prior to overlaying a screed with floor coverings. A maximum of 75% RH is recommended under BS8203 prior to the installation of moisture sensitive finishes in order to prevent any impediments to the drying of the screed.

### Resin Bonded Screed (from 10.0 mm)

Install v-Cem onto a suitable dry substrate, sound and solid, free from cracks, dust, loose material, oil, paint, wax and traces of gypsum. Apply suitable primer onto the substrate and apply whilst the primer is still wet e.g. wet on wet. If the primer dries out it needs to be re-applied.

### Unbonded Screed (from 35.0 mm)

Isolate the substrate with a polyethylene sheet or similar. For rising damp provide a suitable waterproof membrane. The v-Cem mix must be spread, tamped and levelled as soon as possible (must be within 60 mins of mixing). When floated, should provide a closed smooth surface without bleeding.

### Floating Screed (from 55.0 mm)

Install v-Cem as above for unbonded screeds. Where underfloor heating pipes are present, there should be a minimum of 25 mm of screed above the pipes. The underfloor heating may be commissioned after 4 days.

v-Cem is not intended as a wearing surface and must be protected, by suitable sheet materials, in areas where it may be subjected to intensive or heavy use before the final floor finishes are applied. The responsibility for this protection should be that of the main contractor.

All curing and drying times are based on good site conditions i.e. an air temperature of 20°C, air humidity of 65% RH and good ventilation. Sites that are cold, humid or damp or in areas where the airflow is poor, will prolong drying and curing times, so allowances should be made accordingly. Applications to non-absorbent substrates and at thicker application depths will take longer to dry.

Do NOT mix with other cements or binder; Do NOT dry mix with aggregate and leave, DO NOT overwater; DO NOT add water or re-agitate the screed once setting has started, DO NOT use fine sand only – use aggregate grading as in BS EN 13139, USE screed as soon as it is mixed.

Installation of Vebro Polymers' products should be carried out by an applicator with documented quality assurance and experience.

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 – [technical@vebropolymers.com](mailto:technical@vebropolymers.com)

All data values and suggested practises listed on system data sheets are approximate and for representation purposes only. In all instances, prior to installation a project-specific specification and / or professional advice should be sought.

Vebro Polymers accepts no responsibility for liability claims based on the suggested practises and data values listed on system data sheets. System 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.vebropolymers.com](http://www.vebropolymers.com)

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