PERMABOUND
RESIN BOUND SURFACING PRODUCTS

RESIN BOUND STONE
CONTINUOUS PERMEABLE STONE CARPET

CHESS
1607

TECHNICAL SPECIFICATION & INSTALLATION GUIDE

CHESS
Marble: 0% | Granite: 25% | Quartz: 75%
Size 1-5mm | Permeability: ♦♦♦

UVR RESIN

PROPERTY	VALUE	UNIT OF MEASURE
Density (at 25°C)	1.09	g/cm3
Viscosity (at 25°C)	2600	mPas
Mix Ratio	100:95	x:x
Hardness	62	Shore D
Tensile Strength	20.3	MPa
Elongation at Break	51	%
Flexural Strength	4	MPa
Operating Temperature	-10 to +60	(±5) °C
Curing Time (at 21°C)	60	(±10) Minutes

STONE BLEND

PROPERTY	VALUE	UNIT OF MEASURE
PSV	43	–
AAV	3	%
AIV	16	%
ACV	12	%
Hardness	6	Mohs
Flexural Strength		MPa
TRL(55) Slip Test Dry / Wet		PTV
4S(96) Slip Test Dry / Wet		PTV

Resin bound gravel kits typically cover approximately 4m² at 15mm

COMPONENTS (MIX)

PERMABOUND UVR Resin
Weight: 6.5 / 7.0 / 7.5 Kg

PERMABOUND Binding Quartz
Weight: 5 Kg

Haze
Size: 2–5mm
Weight: 25kg

Haze
Size: 2–5mm
Weight: 25kg

Raven
Size: 2–5mm
Weight: 25kg

Haze
Size: 1–3mm
Weight: 25kg

EMBODIED CARBON – Emissions per 1 square metre ($KgCO_2e/m^2$)

RESIN BOUND GRAVEL DEPTH	COMPONENTS		WHEN INSTALLED ON			
	GRAVEL	BINDER	TARMAC	CONCRETE	MESH&GO	X-GRID
15mm	0.11	4.86	12.43	13.35	10.35	12.27
18mm	0.13	5.83	13.99	14.9	11.37	13.26
21mm	0.15	6.80	15.54	16.46	12.92	16.14
25mm	0.18	8.10	23.19	25.03	14.82	16.71
30mm	0.21	9.72	25.41	27.25	17.04	18.93

INSTALLATION STEPS

MIX RATIO:	UVR Resin (Part A + B)	Decorative Stone:	Binding Quartz:
	6.5–7.5 kg (one full kit)	100 kg (4 × 25 kg bags), 1–3 mm or 2–5 mm blends, clean and kiln-dried	5 kg (1 full bag), typically 0.2–0.5 mm

A solid, clean base is essential for a successful resin bound installation. Any moisture, dust, or instability in the surface can affect adhesion and impact the finish. Careful preparation helps the resin bond properly and supports long-term performance of the system.

BEFORE STARTING:

- Check the forecast to avoid rain or high humidity during installation and curing. Once cured, it is weatherproof.
- Ensure the surface is fully dry, clean, and free from dust, oil, or loose debris.
- Confirm that the base is firm and stable, no cracks, movement, or flexing.
- Seal porous or absorbent areas first to avoid uneven curing or resin soaking in.

1. MIX THE RESIN

- Stir Part A for 10–20 seconds to loosen contents.
- Add Part B and mix both together for 60 seconds.
- Mix until smooth and even throughout.
- Always use full kits, do not split batches.

2. ADD AGGREGATES AND SAND

- Add 4 full bags of clean, dry aggregate to mixer.
- Add full resin mix and binding quartz.
- Mix evenly for 3–4 minutes until fully coated.
- Transfer mix immediately into a lined wheelbarrow.

3. SPREAD THE MIX EVENLY

- Tip mix onto surface in small, manageable sections.
- Use lute or rake to roughly level to 15–18 mm.
- Check from all angles to spot any surface issues.
- Work in sequence to maintain a consistent finish.

4. TROWEL AND FINISH THE SURFACE

- Mark working areas in squares before trowelling.
- Compact and smooth with a clean trowel.
- Trowel edges firmly and leave slightly rough.
- Apply crushed glass on top if slip resistance is needed.

KEY NOTES:

- Always use clean, dry, and dust-free aggregates for consistent results.
- Always use a forced action mixer. Never use a cement mixer.
- Keep batch times consistent (ideally 3 to 4 minutes) and avoid overmixing.
- Use full resin kits and full bags of aggregate. Do not adjust ratios.
- Most resins are pre-catalysed and moisture-curing. Only add catalyst if advised.
- Lay each batch immediately. Clean the trowel regularly to avoid dragging.

RESIN BOUND SURFACE MAINTENANCE

Resin-bound surfaces are designed to withstand harsh weather conditions, including strong sunlight and heavy rain, while maintaining performance and appearance. Regular upkeep helps ensure long-term visual quality, surface function, and SuDS compliance.

GENERAL CARE:

- Sweep frequently and clean with cold water at low pressure (max 150 bar, nozzle 200 mm from surface).
- Use resin-compatible cleaners such as BOUNDCLEAN for algae, moss or surface marks.
- Avoid corrosive chemicals, de-icing salt, impact damage or placing hot equipment directly on the surface.
- Reapply a sealer (e.g. BOUNDSEAL) if the surface becomes dull or exposed to preserve lifespan.

PERMABOUND

Sheepbridge Lane
Chesterfield
Derbyshire S41 9RX
United Kingdom

01246 388889
SALES@PERMABOUND.CO.UK
PERMABOUND.CO.UK

DISCLAIMER: *Figures contained within are representative figures and cannot be wholly relied upon for accuracy. If empirical data is required, we highly recommend testing be carried out by an approved and certified test house. Installation directions are for guidance only and do not replace official product instructions or proper training. Always refer to the full installation manual and technical data sheets. Seek appropriate training or appoint suitably trained individuals before carrying out any installation work.*