

Chemical Resistant Waterproofing System

Protection against seawater, water retention and aggressive moisture exposure.

Supply and apply a chemical-resistant waterproofing system using MR. JO Protectokot - BLK over a prepared and primed substrate, to provide long-term protection against seawater, aggressive moisture exposure and industrial waterproofing applications where a black finish is acceptable.

Water is patient. In seawater structures, water retaining structures and marine installations, chloride-bearing moisture works continuously at the concrete and at the reinforcement inside it. A waterproofing barrier is judged by its continuity - every pinhole, unsealed crack and unrepaired honeycomb is a path, and water will find it. Two to three coats build the continuous black barrier, three where exposure is sustained, immersed or chloride-bearing.

Standard Bill of Materials

Items 1-5 are the standard build-up; items 6 and 7 are specified where required. Clause references are set out in full on page 2.

#	Work Item	Description	MR. JO Product	UOM	Ref
1	Surface Preparation	Mechanically prepare to clean, sound concrete with an open texture; remove coatings and salt deposits.	Shot blasting / grinding	Sq.m	A1 - A4
2	Concrete Repairs	Repair all honeycombs, pits, cracks and spalled areas flush - an unrepaired defect is a leak path.	<u>MR. JO Tecseal - CRP</u>	Kg	B1, B2
3	Crack Injection (where required)	Pressure-inject structural cracks; finish the repaired surface flush.	<u>MR. JO Inject - LVC</u>	Kg	B3.1 - B3.4
4	Primer	Seal the substrate and establish the bond; UPS is frequently correct on damp marine structures.	<u>MR. JO Eco Primer - P50I</u> / <u>MR. JO Primer UPS</u>	Sq.m	C1, C2
5	Waterproofing Coating	Two to three coats building the continuous seamless black epoxy barrier.	<u>MR. JO Protectokot - BLK</u>	Sq.m	E11
6	Vertical Protection	Where specified: non-sag coating to walls, kerbs, upstands and steel sections.	<u>MR. JO Protectokot vHB</u>	Sq.m	E6
7	Epoxy Coving	Optional: seamless coving at the floor-to-wall junction, 50 / 75 mm profile.	<u>MR. JO Eco Underlay</u> (tampable)	Rmt	F3.2, F3.3

MR. JO Insight

This system is specified where a black finish is acceptable. That is a genuine engineering constraint, not a footnote - if colour, light reflectance or aesthetics matter in the area, the system is the wrong selection and the requirement should be referred for an alternative specification.

Typical Uses

Sector	Where This Floor Is Specified
Seawater Structures	Jetties, intake channels and structures under chloride-bearing exposure
Water Retaining Structures	Tanks, sumps and reservoirs requiring a continuous internal barrier
Waterproofing	Industrial waterproofing to slabs, bunds and containment areas
Marine Applications	Splash zones, dock structures and coastal plant subject to aggressive moisture

Reference - Standard BOQ Clauses

Full clause text from the MR. JO Standard BOQ Clause Library, for direct use in a project Bill of Quantities or tender specification.

A - Surface Preparation — Select one clause. A2 or A3 is normally appropriate for structures with service history.

Ref	Typical Condition / Application	BOQ Description	UOM
A1	Sound concrete requiring normal preparation	Mechanically prepare the concrete substrate by diamond grinding to remove laitance, weak concrete and surface contamination, producing a clean, sound and open textured surface suitable for receiving the specified epoxy primer and flooring system. The prepared surface shall be cleaned and made ready to receive further epoxy treatment.	Sq.m
A2	Weak concrete requiring aggressive profiling	Mechanically prepare the concrete substrate by captive shot blasting or equivalent approved mechanical method to remove weak concrete, laitance and contaminants, producing a clean, sound and uniformly textured surface suitable for receiving the specified epoxy primer and flooring system.	Sq.m
A3	Existing floor having heavy contamination or existing coatings	Mechanically prepare the concrete substrate using suitable grinding, scarifying or other approved mechanical methods necessary to remove existing coatings, oil contamination and weak concrete to expose a sound substrate suitable for receiving the specified epoxy flooring system.	Sq.m

Ref	Typical Condition / Application	BOQ Description	UOM
A4	Where acid etching is specifically approved	Prepare the concrete surface by acid etching using a suitable acid solution followed by washing and neutralisation where required to produce a clean concrete surface suitable for receiving the specified epoxy primer and flooring system.	Sq.m

B - Concrete Repairs — Complete defect closure is essential in waterproofing duty.

Ref	Typical Condition / Application	BOQ Description	UOM
B1	Minor cracks, pits, honeycombs and surface defects	Repair minor cracks, pits, honeycombs and surface defects using <u>MR.JO Tecseal - CRP</u> , a solvent-free epoxy repair mortar. Repairs shall be completed flush with the surrounding concrete and made ready to receive the specified primer and flooring system.	Kg
B2	Damaged edges and local spalled concrete	Repair damaged concrete edges and localised spalled areas using <u>MR.JO Tecseal - CRP</u> to restore the original profile prior to installation of the flooring system.	Kg
B3.1	Structural cracks requiring epoxy injection	Drill holes and fix injection nipples at suitable spacing along the crack to facilitate pressure injection.	Nos.
B3.2	Structural cracks requiring epoxy injection	Seal the exposed crack surface using <u>MR.JO Tecseal - CRP</u> to prevent leakage of injection resin during the injection process.	Kg
B3.3	Structural cracks requiring epoxy injection	Supply and inject <u>MR.JO Inject - LVC</u> , a low-viscosity epoxy injection resin, under pressure until complete filling of the crack is achieved.	Kg
B3.4	Structural cracks requiring epoxy injection	Remove injection nipples and finish the repaired surface flush, leaving it ready to receive the specified epoxy flooring system.	Nos.

C - Primers — Select one clause based on substrate moisture condition.

Ref	Typical Condition / Application	BOQ Description	UOM
C1	Sound, dry concrete	Supply and apply <u>MR.JO Eco Primer - P50I</u> , a two-component solvent-free epoxy primer, over the prepared concrete substrate to seal the surface, improve adhesion and provide a suitable bonding layer for the specified epoxy flooring system.	Sq.m
C2	Damp concrete where drying is impractical	Supply and apply <u>MR.JO Primer UPS</u> , a solvent-free moisture-tolerant epoxy primer, over the prepared concrete substrate to provide reliable adhesion and a suitable bonding layer for the specified epoxy flooring system.	Sq.m

E - Topcoat — E11 is mandatory. Include E6 for vertical surfaces and steel sections.

Ref	Typical Condition / Application	BOQ Description	UOM
E11	Black chemical-resistant waterproofing coating	Supply and apply two to three coats of <u>MR. JO Protectokot - BLK</u> over the approved primer to provide a seamless black epoxy coating for aggressive waterproofing, seawater exposure and environments where a black finish is acceptable.	Sq.m
E6	Vertical chemical resistant coating	Supply and apply two to three coats of <u>MR. JO Protectokot vHB</u> over the approved primer to provide a seamless non-sag chemical-resistant coating for vertical concrete or steel surfaces.	Sq.m

F - Finishing & Ancillary Works — Include as specified for the project.

Ref	Typical Condition / Application	BOQ Description	UOM
F3.2	General industrial, food processing and pharmaceutical areas	Supply and install a 50 mm x 50 mm seamless epoxy coving using <u>MR. JO Eco Underlay</u> applied at tappable consistency, integrally bonded between the floor and wall to provide a durable, hygienic and easy-to-clean transition.	Rmt
F3.3	Heavy-duty industrial and wet processing areas	Supply and install a 75 mm x 75 mm seamless epoxy coving using <u>MR. JO Eco Underlay</u> applied at tappable consistency, integrally bonded between the floor and wall to provide a robust, impact-resistant and hygienic floor-to-wall transition.	Rmt

Specification Notes

- Water leaking cracks, active cracks, moving joints and negative-side water pressure require project-specific treatment. Consult Ask MR. JO Technical Services before finalising the specification.
- Immersion service, elevated temperature and UV exposure fall outside the standard scope of this system. Consult Ask MR. JO Technical Services.
- Substrate moisture, ambient conditions and cure schedules are critical in water retaining and marine work and should be confirmed for the specific structure.

Ask MR. JO

For help selecting a flooring system, adapting these clauses to your site conditions or developing a complete specification, ask MR. JO - we will help you choose based on what your floor is expected to do, not simply on product names, thickness or budget. Projects outside the scope of these standards should be referred to Ask MR. JO Technical Services.