

Isocrete PQ

Product sheet

Product Description

Isocrete PQ is a versatile, single-component, rapid strength gaining repair mortar for horizontal, and form and pour repair projects. Requiring only the addition of water, **Isocrete PQ** is a low-shrinkage, high early strength material that is easy to use for fast turn-around projects. Repaired areas may be open to standard tire traffic after 5 hours following the final set. **Isocrete PQ** is similar in appearance to concrete and is suitable for use in repairing concrete surfaces from approximately 12 mm – 150 mm in thickness.

Primary Applications

- Multi-unit residential
- Bridges
- Loading docks
- Highways
- Warehouses
- Pavements
- Roads
- Parking decks and ramps
- Industrial / commercial / institutional floors
- Vertical/Overhead form and pour applications

Features / Benefits

- Rapid strength gain with extended working time
- Suitable for interior or exterior applications
- Open to light duty traffic as soon as 4 hours
- Can be coated with a moisture tolerant product after 5 hours (20° C / 50% RH)
- Micro-fibre reinforced
- Shrinkage compensated and reduced
- Can be placed 12 mm - 150 mm

Packaging

Isocrete PQ is packaged in 25 kg bags. Yield: 0.011m³ per bag when mixed with 2.5 L of water.

Specifications / Compliances

Suitable for repair methods 3.1, 3.2, 3.3, 4.4, 7.1 and 7.2 as defined by BS EN 1504-3.

Technical Information

Performance tests	Result	Requirement
		Structural Class R4
Mixing water	10,5%	--
Determination of compressive strength, EN 12190:1999	90,4 N/mm ²	≥ 45 MPa
Chloride ion content, EN 1015-17:2000	0,01%	≤ 0,05 %
Measurement of bond strength by pull-off, EN 1542:1999	3,5 MPa	≥ 2,0 MPa
Determination of retraction and expansion, EN 12617-4:2002, Method controlled movements	Shrinkage: 3,5 MPa Expansion: 3,5 MPa	≥ 2,0 MPa
Freeze-thaw cycling with icing salt immersion, EN 13687-1:2002	3,3 MPa	Bond strength after 50 cycles ≥ 2,0 MPa
Determination of resistance to carbonation, EN 13295:2005	Complies	Dk ≤ reference concrete MC(0,45)
Determination of the module of elasticity in compression, EN 13412:2008	45,5 GPa	≥ 20 GPa
Determination of slip/skid resistance, EN 13036-4:2012	76 (dry value) 47 (wet value)	Class I:>40 wet test Class II:>40 dry test Class III:>55 wet test

Directions for Use

Surface Preparation: Concrete surfaces must be structurally sound, free of loose or deteriorated concrete and free of dust, dirt, paint, efflorescence, oil and all other contaminants. Ensure a properly clean profiled area.

Priming: Soak the repair area with potable water to achieve a saturated-surface dry (SSD) condition. The SSD concrete must be primed with a scrub coat of **Isocrete PQ**. The repair must be made before the **Isocrete PQ** scrub coat dries out.

Mixing: Single bags may be mixed with a drill and mixing paddle. Use a horizontal shaft mortar mixer for larger jobs. Add the appropriate amount of water for the batch size and then add the **Isocrete PQ**. The amount of water to be mixed with the **Isocrete PQ** is critical. Initially add 2.5 l of water per 25 kg bag and mix for 3 minutes. If after the initial 2 minutes of mixing the desired flow is not obtained, no more than 118 ml of additional water should be added to the mix in order to achieve more flow. Mix an additional 2 minutes after adding extra water.

Placement: Important-The application temperature range of **Isocrete PQ** is from 5° to 35°C. Allow approximately 30 minutes to mix, place, and finish **Isocrete PQ** repair mortar at 20°C. To make repairs, spread with a float or square tipped shovel to a thickness that is level with the surrounding concrete. Do not use **Isocrete PQ** for repairs less than 12 mm deep. For repairs less than 12 mm deep contact the Flowcrete technical department.

Finishing: Finish the repair material to the desired texture. Do not add water to the surface during the finishing operation.

Curing & Sealing: Wet cure the surface with water and polyethylene sheets for at least one day, or use a curing compound (**Kureseal**). If applying an epoxy coating, **Isocrete PQ** can be mechanically abraded and coated with a moisture tolerant product (e.g. **Flowfresh HF**) after 5 hours at 20° C / 50% RH.

Clean Up

Clean tools and equipment with water before the material hardens.

Precautions / Limitations

- The application temperature range is 5 to 35°C.
- If an epoxy coating will be applied, follow surface preparation procedures as directed by the coating manufacturer.
- In all cases, consult the Safety Data Sheet before use.

Any suggested practices or installation specifications for the composite floor or wall system (as opposed to individual product performance specifications) included in this communication (or any other) from Flowcrete UK Ltd constitute potential options only and do not constitute nor replace professional advice in such regard. Flowcrete UK Ltd recommends any customer seek independent advice from a qualified consultant prior to reaching any decision on design, installation or otherwise.

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