

POURING CONCRETE

Product code

ACR05, packaging listed overleaf

Description

Pouring Concrete is a blend of special Portland cements, high quality non ASR reactive aggregates and includes microsilia. The products contain no iron, high alumina cement, chloride or deleterious substances. The mortar powder, when mixed with water, produces a homogenous concrete which will not segregate or bleed and is non-shrink. The water addition required to achieve a flowing concrete should be set in the range of 10% to 11% of the Pouring Concrete powder weight. At higher temperatures the higher water addition may be required to obtain the preferred consistency. Pouring Concrete is used for all concrete repairs wherever a flowing concrete is required. A strong bond is achieved between the placed material and the repair substrate.

Pouring Concrete is easily mixed and placed under gravity. The mix has high flow characteristics, will not rapidly stiffen and is stable against segregation and bleeding. The placed material generates high early age strength, 50N/mm² at 1 day. The aggregates used in the mix design are non-reactive to ASR attack.

Uses include:

- New construction work Repairs to corroded and damaged reinforced concrete.
- Refurbishment of soffits to bridge beams and crossheads.
- Repair of marine structures in offshore environments.
- Motorway and carriageway repairs.

Specification Outline

Concrete repairs and replacement shall be carried out using Pouring Concrete as manufactured by Parex Ltd. The product must be stored, handled and used strictly in accordance with the manufacturer's instructions.

Quality Assurance

Parex Ltd is a firm of Assessed Capability. The Company's quality system conforms to BS EN ISO 9001:2008 and is assessed by UK CARES LTD.

Standards

Pouring Concrete has been tested in accordance with the appropriate parts of EN12390, EN 197, ASTM C230, ASTM C827, USAEC:CRD-C39, ISO DIN 7031

Typical Concrete Properties @ 20°C

Consistency

Water Content %	Ltr/25kg Bag	Consistency
10	2.5	Flowing concrete

Consistency Life

Water Content %	Ltr/25kg Bag	Concrete Slightly Agitated
10	2.5	30 Minutes

Set times (EN 197)

Water content %	Ltr/25kg bag	Initial Set	Final Set
10	2.5	5 Hours	6.5 Hours

Compressive Strength

Water Content %	N/mm ² @ 1Day	N/mm ² @ 3 Days	N/mm ² @ 7 Days	N/mm ² @ 28 Days
10	50	65	80	90

Density @ Water Content 10%: 2300kg/m³

Shrinkage: Pouring Concrete is non-shrink

Bond Strength: 2.9N/mm²

Compressive Modulus: 32kN/mm²

Resistivity: >20Kohm-cm

Coefficient of Thermal Expansion: 6.4x10⁻⁶ per °C

Air Content after 10 minutes: 5.4%

Water Permiability: 6.85x10⁻¹⁵m/s

Coefficient of Chloride Ion Diffusion: 2.1x10⁻¹³m²/s

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Instructions For Use

Preparation

Ensure all contact surfaces are clean, free of contamination and marine or other growth. Concrete surfaces should be soaked for a few hours then blown free of standing water prior to concreting. Shutters must give sufficient hydrostatic head for the concrete to flow across the work area and be strong enough to resist the hydrostatic force of concreting.

Mixing

Place the required quantity of water in a suitable mixing vessel. Slowly add the powder to the water whilst continuously mixing. Suitable mixers include a slow speed high torque drill with a Mortar Stirrer. After all the powder has been added mix for a further minute. For larger mixes the use of a forced action mixer such as the Creteangle is recommended. Mixing by hand may not give the required consistency and end results.

Placing

When placing by pouring, ensure that sufficient Pouring Concrete has been mixed and available such that the placing operation can be carried out in one continuous pour. Place the mixed Pouring Concrete from one side of the work piece until the area is full and material appears on the opposite side from the pour.

Once placed, do not disturb the concrete until hardened.

Curing

After concreting has been completed or the shutters removed, any exposed concrete must be cured immediately with Polycure sprayed at a rate of 10m² per litre. In adverse ambient conditions of rapid drying such as high temperatures and drying winds apply a second coat of Polycure after the first coat has dried.

Precautions

Health and Safety

Pouring Concrete is alkaline when mixed with water and should not come into contact with skin or eyes. Avoid inhalation of dust during mixing and wear safety glasses, dust mask and gloves. If skin contact occurs wash thoroughly with clean water. Should eye contact occur rinse immediately with plenty of clean water and seek medical advice.

Full health and safety data are given in Product Safety Data Sheet.

Fire

Pouring Concrete is non-flammable

Yield

Pouring Concrete is packed in 25kg bags. The yield obtained is approximately 11.75 litres of mixed material.

Storage And Shelf Life

Pouring Concrete will have a shelf life of 12 months when kept in dry conditions at a temperature of 5°C to 45°C. Storage at higher temperatures or high humidity may reduce the shelf life.

Packaging And Ordering

Pouring Concrete is supplied in:

25kg bag: Product Code ACR05

Polycure is supplied in:

5 kg polybottles Product Code AF03

For further information and sales please contact your local Parex office as listed below.

Parex Ltd products are guaranteed against defective materials and manufacture. Products are sold subject to the Parex Ltd Terms and Conditions of Sale, copies of which are forwarded on invoice and are available on request. Parex Ltd endeavours to ensure that the above data and any further advice is correct, however, it cannot accept any direct or indirect liability for the use of its products as such usage is beyond its control.