

# LANKOREP STRUCTURE

## Product Overview

- Application range: 5 to 50mm per pass
- Conforms to EN 1504-3 class R4
- Consistency: thixotropic mortar
- High Adhesion
- High compaction
- High initial and ultimate mechanical strength

Excellent resistance to sea water, sulphate and de-icing salt

## Description

Lankorep Structure is a balanced shrinkage mortar based on special cements with selected graded silica aggregates, fibres and admixtures. The very low porosity significantly slows down the spreading of carbonation.

The self-contained product only needs to be mixed with water on site. The product has low chloride content and can therefore be safely used in contact with steel reinforcement. After placement no special curing is required in moderate ambient conditions. In rapid drying conditions, expected rain or frost, protection should be applied.

**731 Lankorep structure is suitable for the following repair methods as defined in BS EN 1504.**

- 3.1 – Manual mortar application.
- 3.3 – Mechanical mortar application.
- 4.4 – Structural strengthening – adding mortar or concrete.
- 5.3 – Increasing physical resistance – adding mortar or concrete.
- 6.3 – Resistance to chemicals – adding mortar or concrete.
- 7.1 – Preserving or restoring passivity – increasing cover with additional mortar or concrete.
- 7.2 – Preserving or restoring passivity – replacing contaminated or carbonated concrete.

**Uses include:** Repair of concrete surfaces, spalling, honeycombing, stair nosing.

Restructuring of concrete structures: pillars, slabs, posts, arches, raft foundations and dam spillways.

Reinforcement of weakened structures such as balconies, parapet walls and cornice work.

Suitable for all structures subjected to the exposure categories XO, XC, XD, XS and XF.

Passive crack repair.

Treatment of channels and screeds in waterproofing works.

<b>CE</b>		
0333		
<b>EN1504-3</b>		
Products for structural repair CC Mortar (based on hydraulic cement)		
Compressive strength	EN 12190	Class R4
Chloride ion content	EN 1015-17	≤ 0.05%
Adhesive bond	EN 1542	≥ 2.0MPa
Restrained shrinkage / expansion	EN 12617-4	≥ 2.0MPa
Carbonation resistance	EN 13295	Passes
Elastic modulus	EN 13412	30.7 GPa
Thermal compatibility Part1:	≥ 2.0MPa	
Thermal compatibility Part2:	≥ 2.0MPa	
Thermal compatibility Part3:	≥ 2.0MPa	
Capillary absorption	≤ 0.5kg/m <sup>2</sup> .h <sup>0.5</sup>	
Dangerous substances	Complies with 5.4	
Reaction to fire	Euroclass A1	
PAREXLANKO SA Usine de Paviers 37220 Crouzilles <b>09</b> <b>No. 0333-CPD-03006</b>		PAREXLANKO SA Usine d'Isle sur la Sorgue ZI de la Grande Marine – 84800 L'Isle sur la Sorgue <b>09</b> <b>No. 0333-CPD-03006</b>

## Specifications

Active constituents containing hydraulic binders and synthetic fibres; contains no metal particles

- Grey, ready to mix powder
- Particle size: 0-2mm
- Set density: 2000kg/m<sup>3</sup>
- Slump (Abrams half cone): 20mm
- Mortar pH: 12.5
- Working life: approx. 30min at 20°C

## Setting times

Temperature	+5°C	+20°C	+35°C
Initial set / h	7	2	1
Final set / h	8.5	3	1.5

## Mechanical strength profile (+20°C / 90% RH)

Age/ days	1	2	7	28
Compressive	30	35	45	60
Flexural	5	7	10	12

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## Instructions For Use

### Batching summary

Application	Manual	Mechanical
Powder	25kg	25kg
Water	3.5 litres	4.25 litres
Yield	13 litres	14 litres

### Preparation

Laitance and all loose material including dust, oil and grease should be removed in order to produce a sound substrate. Cut free any corroded steel and clean back to bright metal. The work area should be pre-wetted taking care to remove any standing water. Passivize exposed steel with a bonding slurry coat mixed of Lankorep Structure and Parex Latex.

### Mixing

To achieve the most consistent mortar mix, mechanical mixing using a forced action mixer such as the Creteangle is recommended. Small mixes may be made using a heavy duty slow speed high torque drill and Mortar Stirrer. Lankorep Structure requires mixing with clean water. The quantity of water varies according to the placing method (see below). Slowly add the powder to the water in the mixing vessel. Mix for at least 3 minutes to obtain the correct consistency. Excess water should not be added. Once setting of the mortar has commenced, further mixing should not be used to re-work the mix.

### Placing

#### A) By hand application

Apply the mixed material by trowel or gloved hand firmly to the repair area ensuring full contact. Build up to the required thickness. Float or smooth off the repaired surface.

#### B) By mechanical application

Use a suitable mixer-pump such as the Putzmeister SP11 (BMT/BBR). Lubricate the pumping lines with a Portland cement grout. Mixing is carried out by the machine at a water addition of 4.25Litres per bag of Lankorep Structure. Do not add additional water at any stage of mixing or placing. Float or smooth off the repaired surface.

## Accreditations

Parex Ltd has an integrated management system which is externally accredited to ISO9001, ISO14001 and OHSAS18001.

## Precautions

### During Placing

- Application temperature range +5 to 35°C
- Do not apply to substrates that are likely to be effected by frost or thawing
- Substrate must be clean, sound and free of loose material
- Active cracks should be made passive prior to application
- Saturate repair area with water prior to application
- Once finished protect the repair from drying conditions using Polycure where necessary

### Health and Safety

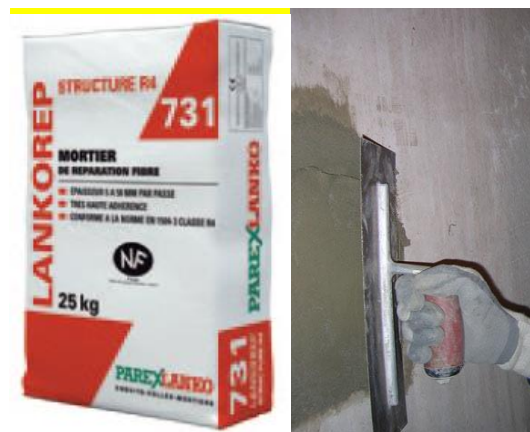
Lankorep Structure is alkaline when mixed with water and should not come into contact with skin or eyes. Avoid inhalation of dust during mixing and wear safety glasses, dust mask and gloves. If skin contact occurs wash thoroughly with clean water. Should eye contact occur, rinse immediately with plenty of clean water and seek medical advice. Full health and safety details are given in Product Safety Data Sheet.

### Fire

Lankorep Structure is non-flammable. Fire Class A1.

## Packaging and Ordering

731 Lankorep Structure is supplied in:  
 25kg valve sack bags Product Code L731



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

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