# ŶØ CONCRETE REPAIR - PRODUCT

# CERMIREP

# SHRINKAGE-COMPENSATING FIBRE-REINFORCED REPAIR MORTAR











#### SURFACE PREPARATION

The substrate must be clean, free of grease and have any loose material removed.

Methods that achieve this may be finishing with a bush hammer, milling, hammering or any other method that is sufficiently efficient to produce a cohesive value greater than 1.5 MPa.

After preparation, moisten the substrate to its core without making it leach (mat damp). Clear away residual water.

#### PREPARING THE MIXTURE

Mix 25 kg of CERMIREP R4 with a maximum of 4-4.25 L of water. Pour 90% (3.6 L) of the water into a mixing bucket.

Gradually add the powder while mixing with a mixer (400 to 600 rpm) for 3 minutes until a homogeneous consistency is obtained. Stir again by slowly adding the remaining water until the desired consistency is achieved (never exceed the prescribed amount). For small quantities, the product can also be mixed manually with a trowel.

# HOW TO APPLY THE SYSTEM

For optimal adhesion, apply a slurry using a brush. Make it up on the basis of the mortar mixed, adding water until it has the consistency of "pancake batter".

Apply the mortar using a trowel on the fresh slurry. Then add extra thickness portionwise.

In case of rework, the previous layer (fresh mortar) must be scratched.

# **APPLICATION CONDITIONS**

Application temperature: +5°C to +30°C

Start of set: approximately 90 min

End of set: approximately 280 min

Pot life: 30 minutes at 20°C

#### COMMENTS

In hot weather or high winds, as soon as the visible surface of the mortar becomes mat, perform an effective cure by spraying clean water, covering with a damp cloth or applying a curing product. In cold weather, cover with insulation cloth made of polystyrene or another insulating material.

Protect the repair area from rain until the product is fully hardened.

#### **CLEANING AND MAINTENANCE**

The equipment must be cleaned immediately with clean water. Once cured, the product has to be removed mechanically.

#### COVERINGS

The cured product may remain bare or be covered:

- by ceramic coverings/natural stone: 12/24 hr drying at 20°C
- by painting: 2 to 3 days of drying depending on outdoor conditions.

# DESCRIPTION

Grey

Fibre-reinforced single-component mortar containing special cements, highly pure perfectly sized silica sand, and specific fibre-reinforced admixtures.

# **ADVANTAGES**

- Thixotropic
- Can be pumped, sprayed and applied manually
- Excellent adhesion
- Chloride-free, non-corrosive. Does not affect reinforcements.
- Contains a corrosion inhibitor
- Perfectly compatible with concrete and masonry

# WHERE TO USE

Structural and non-structural concrete repairs.

- For restructuring damaged elements
- For repairing prefabricated components
- For grading surfaces

# **HOW TO USE**

Note: The following is a typical description of the application. If your site has other parameters, contact our Technical Department.



# SUITABLE SUBSTRATES

Béton Maçonnerie (parpaing, bloc) Enduit ciment

# **TECHNICAL CHARACTERISTICS**

#### COVERAGE

2 kg of powder/m²/mm thick.

#### **TECHNICAL CHARACTERISTICS**

Technical Characteristics	Value	
Particle size	0 – 1,6 mm	
Powder density	1,21	
Paste density	2,15	
Exposure classes (EN 206-1)	X0, XC1, XC2, XC3, XC4, XF1, XF3, XD1, XD2	
Compressive strength	at 24 hr	35 MPa
	at 28 days	73 MPa
Flexural strength	at 24 hr	6 MPa
	at 28 days	9 MPa

CE		
0333		
<b>CERMIREP R4</b> CERMIX- Rue de la Belle Croix - 62 240 DESVRES		
13 0333 - CPR - 030016		
EN 1504-3 Concrete repair product for structural repair CC mortar		
Compression strength	Class R4 (≥ 45 MPa)	
Chloride ion content	≤ 0,05 %	
Adhesion	≥ 2,0 MPa	
Shrinkage/expansion prevented	2,3 / 2,3 MPa (≥ 2,0 MPa)	
Carbonation strength	Satisfactory	
Modulus of elasticity	34,2 GPa	
Thermal compatibility Part 1, freeze-thaw	≥ 2,0 MPa	
Slip and skid resistance	NPD	
Coefficient of thermal expansion	NPD	
Capillary absorption	≤ 0,5 mm kg.m-² .h-0.5	
Reaction to fire	Class F	
Hazardous substances	See safety data sheet	

#### **REFERENCE DOCUMENTS**

Eurofins / Certificate of conformity to positive reference lists No. 17 CLP NY 038 (Valid until 10/2022)

# PACKAGING

25 kg bag – 48 bags per pallet

# **STORAGE & SHELF LIFE**

Can be stored for 12 months from the manufacturing date in the original, unopened packaging.

Store in a dry place at temperatures between +5°C and +35°C.

# **SAFETY INSTRUCTIONS**

- EMISSIONS IN INDOOR AIR (1): Information on the level of volatile substances emitted in air indoors, presenting a toxicity risk by inhalation, on a classification scale ranging from A+ (very low emissions) to C (high emissions).
- Consult the safety data sheet at www.quickfds.fr or ask CERMIX France for it.
- Always wear personal protective equipment that meets current guidelines and regulations.
- Dispose of the contents and container in accordance with local/ regional/national/international regulations.

CONCRETE REPAIR - PRODUCT

We reserve the right to update this technical document. It is the user's responsibility to always check whether there is a more recent version available at our website, www.cermix.com. It is the responsibility of the person using the products to ensure that the products are compatible and suitable for the planned use. Prior tests may be carried out to confirm that products behave as expected.

