



ATLAS FILER S

repair mortar for concrete

- compressive strength 60 MPa
- possibility to apply another coat of ATLAS FILER S already after 4 hours
- application of the finishing repair putty ATLAS ENDER S already after 24 hours



Properties

ATLAS FILER S is produced as a dry mixture of the highest quality cement and quartz fillers and additives.

It enables the shape of the part being repaired to be contoured and accurately reproduced.

It allows unevenness in the substrate to be corrected for both localised restorations and repairs to the entire surface.

Designed for manual and mechanical application.

ATLAS FILER S is resistant to weathering and direct exposure to de-icing salts. It is characterised by its water resistance and diffusivity. It has test-confirmed resistance to carbonation, thus contributing to an increase in the service life of the structure.

Purpose

It is part of a system for repairing reinforced concrete and concrete structures - ATLAS BETONER S.

Contact layer	ATLAS ADHER S
Main layer of repair	ATLAS FILER S
Finishing layer	ATLAS ENDER S

It is used to repair elements of a structural and finishing nature - balconies, terraces, ceilings, stringers, columns, stairs and frame structures, monolithic structures, tanks, cooling towers and chimneys and other structural and non-structural concrete elements.

Technical data

Bulk density (dry mix)	approx. 1.5 kg/dm ³
Mixing ratio water / dry mix	0.14÷0.15 l / 1 kg 3.5÷3.75 l / 25 kg
Min/max mortar thickness	10 mm / 50 mm
Adhesion to concrete with ATLAS ADHER S after 28 days	min. 1.5 MPa
Compressive strength after 28 days	min. 60.0 MPa
Compressive strength after 2 days	min. 30.0 MPa
Resistance to carbonisation	Fulfilled Carbonation depth d_k less than for the control concrete
Temperature of mortar preparation and substrate and ambient temperature during the work	from +5 °C to +25 °C
Maturation time	approx. 5 minutes
Pot life	approx. 1 hour
Open time	min. 10 minutes
Use – foot traffic	after approx. 24 hours
Application of the filling layer ATLAS ENDER S	after approx. 24 hours
Application of waterproofing with ATLAS WODER DUO	after approx. 24 hours
Loading	after about 7 days

Technical requirements

The product meets the requirements of EN 1504-3:2006.

ATLAS FILER S (2022) Declaration of performance No. 085-2S/1/CPR EN-1504-3:2005	
Intended use: in buildings and engineering works	
Compressive strength	Class R4
Chloride ion content	≤ 0,05%
Adhesion	≥ 2,0 MPa
Limited shrinkage/swelling (dimensional stability)	≥ 1,5 MPa
Modulus of elasticity	≥ 20 GPa
Thermal compatibility	≥ 2,0 MPa
Slip resistance	Classes I and II
Capillary absorption	≤ 0.5 kg/m h ^{20,5}
Reaction to fire	A1

Repairing substrates

The concrete substrate should be stable and load-bearing, i.e. sufficiently strong (tensile strength at least 1.5 MPa), cleaned from layers that could weaken the adhesion of the mortar. Loose and separating layers of concrete, cement laitance should be removed from the surface to be repaired and it should be cleaned of dust, dirt, lime, oil, grease, wax, oil and emulsion paint residues. Concrete substrates that are significantly damaged, soiled or chemically or biologically corroded should be subjected to special treatments such as sand-blasting, shot-blasting, milling, decontamination, etc. The substrate should be covered with a contact layer of ATLAS ADHER S mortar according to its application technology.

Preparation of the mortar

Pour the material from the bag into a vessel with a measured amount of clean water (proportions given in the Technical Data) and mix with a slow speed mixer until a uniform consistency is obtained. The mortar can also be prepared in a concrete mixer. The mortar is suitable for use after approx. 5 minutes and after re-mixing. It should be used within approx. 1 hour.

Application of the repair layer - manual application

ATLAS FILER S mortar should be spread evenly with a steel trowel on the contact layer of ATLAS ADHER S mortar using the "wet on wet" method. When spreading, the mortar should be pressed firmly into the substrate, especially when filling cavities. Depending on the intended use of the levelling layer, its surface should be smoothed with a steel trowel or made rough with a sponge float.

In the case of repairs of cavities larger than 50 mm, the next layer of ATLAS FILER S mortar can be applied after 4 hours, on a damp matt substrate (the application of ATLAS ADHER S bonding layer is then not required).

Execution of the repair layer - mechanical application

Protect the exposed reinforcement with ATLAS ADHER S mortar according to its application technology. Moisten the substrate for mechanical application with water to a damp-mat condition. Porous and dry substrates should be saturated with water at least 1 day before application of the repair mortar.

Mechanical application of ATLAS FILER S mortar should be carried out in layers up to 30 mm thick in one cycle. It is recommended that the nozzle of the unit should be directed at an angle as close as possible to 90 degrees to the substrate, with a distance from 0.5 to 1.0 m between the nozzle outlet and the substrate. The applied layer should be compact. When applying to a surface with reinforcement, the marker is applied at closer distances and from different sides, so as not to form "caps" on the rebar (it may be necessary to increase the energy of the marker when doing so). In the case of repairing defects larger than the thickness of the mortar applied in one pass, the next layer of mortar can be applied after 4 hours (a bonding layer is not required in this case).

Care of fresh mortar

After laying ATLAS FILER S mortar, the fresh surface should be protected from rapid drying for 3-5 days before:

- rapid drying (e.g. use of water mist, wet geotextile screens),
- direct sunlight,
- draughts,
- large temperature fluctuations,
- frostbite.

The heating of the room in which the work is carried out should also be reduced. The drying time of the layer depends on its thickness and the thermo-humidity conditions in the surroundings.

Surface use

The surface covered with repair layer can be used (walked on) after approx. 24 hours and loaded after 7 days. The finishing layer of ATLAS ADHER S mortar can be applied after 24 hours. Protective coating ATLAS WODER DUO can be applied after 24 hours. The timing of any other type of finishing work depends on the type of cladding planned and should be in accordance with the requirements of the manufacturer of the material used.

Consumption

On average, approximately 20 kg of dry matter is used per 1 m² and per 10 mm of thickness.

Packaging

25 kg paper bags.

Safety information

Safety information is given on the product packaging and in the Safety Data Sheet, available at www.atlas.com.pl.

Storage and transport

Information on storage and transport is given on the product packaging and in the Safety Data Sheet, available at www.atlas.com.pl.

The shelf life of the product (best before use) is 12 months from the date of manufacture on the packaging.

Important additional information

In accordance with the provisions of EN 1504-10 Products and systems for the protection and repair of concrete structures. Definitions. Requirements. Quality control and conformity assessment. Part 10: Use of products and systems on site and quality control of works the following repair methods are distinguished:

- 3.1 - manual application of repair mortar,
- 4.4 - application of the mortar layer,
- 7.1 - increase the thickness of the lagging by adding mortar,
- 7.2 - replacement of contaminated or carbonated concrete with mortar.

Clean the tools with clean water, immediately after use. Difficult to remove residues of the set mortar are washed off with ATLAS CEMENT AWAY.

The information contained in the Technical Data Sheet is a basic guideline for the use of the product and does not release you from the obligation to carry out the work in accordance with the rules of the trade and in compliance with health and safety regulations. With the issue of this Technical Data Sheet, all previous ones are no longer valid.

The contents of the Technical Data Sheet and the designations and trade names used therein are the property of Atlas Ltd. Their unauthorised use will be sanctioned.

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