ATLAS ZW 330

rapid-set levelling mortar

- bonding of tiles after only 5 hours
- no shrinkage cracks (fibre reinforced)
- high mechanical strength

Properties

ATLAS ZW 330 mortar is produced as a dry mixture of the highest quality cement binder, quartz fillers and refining additives.

Allows a very quick start to subsequent work - under normal conditions, the tiles can be laid after approx. 5 hours (at a layer thickness of 5 mm).

Reduces wear and tear on adhesive mortars, plasters and floor underlays and flooring.

Plastic consistency - the working parameters ensure easy application and the desired filling of cavities in the repaired surface.

High mechanical strength:
- compressive min. 20 MPa
- bending min. 4.0 MPa.

Reinforced with polypropylene fibres that:
- reduce cracks resulting from shrinkage during mortar setting,
- allow thicker layers of mortar to be applied to vertical surfaces without run-off effect,
- ensure even water transport during drying.

No shrinkage cracks.

A wide range of layer thicknesses - from 3 to 30 mm in one pass - moreover, when mixed with quartz sand (grain size up to 2 mm) at a weight ratio of 1:4 (sand : dry mortar), layer thicknesses of 31 mm to 60 mm can be extended (when filling cavities and levelling horizontal surfaces).

Purpose

Repairing building substrates inside and out:
- filling cavities and levelling other irregularities in the substrate,
- corner reconstruction,
- filling grooves left by decommissioned installations both in floors and walls, after point or line drains,
- full-surface levelling of walls including plastering up to 3 cm,
- additional thick surface reinforcement using glass fibre mesh,
- repair of window reveals when replacing joinery,
- repair of balcony slab edges, corners of beams, columns and stairs, restorations and repairs to floors,
- shaping facets,
- plaster restoration,
- formation of slopes in linear drains, terrace and balcony sleepers,
- masonry restorations at penetrations through the building wall.

Making subfloors bonded to the subfloor.

Type of substrate to be repaired - cement and cement-lime plaster, concrete, aerated concrete, cement screeds, as well as unplastered brick and ceramic or silicate block walls.

Type of finishing layer - ceramic tile cladding, plaster, thin layer plaster, floor panels, etc.

Technical data

Bulk density (dry mix)	approx. 1.6 kg/dm³
Mixing ratio water / dry mix	0.17÷0.22 l / 1 kg 4.25÷5.5 l / 25 kg
Temperature of mortar preparation and substrate and ambient temperature during the work	from +5 °C to +25 °C
Contact layer	ATLAS ADHER S
Min/max mortar thickness	3 mm / 30 mm For a thicker layer - from 31 mm to 60 mm - quartz sand (grain size up to 2 mm) in a weight ratio of 1:4 (sand : dry mortar).
Maximum diameter of aggregate	1.0 mm
Pot life	2 hours
Open time	min. 20 minutes
Bonding of tiles from the application of mortar	after 5 hours with a layer thickness of 5 mm after 10 hours with a layer thickness of 10 mm after 20 hours with a layer thickness of 20 mm after 48 hours with a layer thickness greater than 20 mm
Installation of panels	after 48 hours
Full load	after 3 days

The times shown in the table are recommended for application conditions of approx. 23 °C and 50 % humidity.

Technical requirements

ATLAS ZW 330 meets the requirements:
- EN 998-1 - plaster mortar with specified properties manufactured in-house, general purpose for manual application GP, for internal and external use on masonry walls, ceilings, columns and partitions,
- EN 13813 - Cement-based floor underlay CT-C20-F4 for use inside buildings.

ATLAS ZW 330 (2019) Declaration of performance No. 167/2/CPR EN 998-1:2016 EN 13813:2002	
Intended use: - for external walls, floors and columns - for walls, ceilings, columns and partitions	
Reaction to fire	A1
Water absorption	IN 1_C
Water vapour permeability coefficient	$\mu \leq 30$
Adhesion	0.3 N/mm² - FP:B
Intended use: EN 13813:2002 Cement-based subfloor underlay for interior use in buildings	
Reaction to fire (in case of exposure)	$A1_{fl}$
Release of corrosive substances	CT
Resilience: - Compressive strength - Bending strength	 C20 F4

The product has the National Technical Assessment ITB-KOT-2019/1202 edition 1.

Rapid-set levelling mortar ATLAS ZW 330 (2020) ITB-KOT-2019/1202 Issue 1 National Declaration of Performance No. 167/1	
Compressive strength: - mortars without sand - mortars with sand	 ≥ 22 MPa ≥ 20 MPa
Bending strength: - mortars without sand - mortars with sand	 ≥ 4 MPa ≥ 4 MPa
Adhesion to concrete substrate, with contact layer: - mortars without sand - mortars with sand	 ≥ 1,0 MPa ≥ 0,6 MPa
Adhesion to primed cellular concrete substrate: - mortars without sand - mortars with sand	 ≥ 0,4 MPa ≥ 0,4 MPa
Adhesion to primed cement mortar substrate: - mortars without sand - mortars with sand	 ≥ 1,0 MPa ≥ 0,6 MPa
Frost resistance as determined by decrease in compressive strength	≤ 10 %
Contraction: - after 3 days - after 7 days - after 28 days	 ≤ 0.1 mm/m ≤ 0.6 mm/m ≤ 0.7 mm/m
Böhme abrasion resistance cm³/50 cm²	≤ 30

Directions for use

Substrate preparation - application of mortar for substrate repair
The substrate should be dry and load-bearing, i.e. sufficiently strong, cleaned from layers that could impair adhesion of the repair mortar, especially from dust, dirt, lime, oil, grease, wax, bituminous substances and paint residues. Loose elements and fragments of the substrate with poor strength should be removed mechanically, e.g. by chiselling. Wet the substrate with water to a damp matt state immediately before applying the coat. If it is necessary to increase the adhesion to the substrate, a contact layer should be applied (described below).

Substrate preparation - use of mortar as a substrate bonded to the substrate
The substrate should be free of layers and elements that could impair adhesion, especially dust, lime, oil, grease, bituminous substances, paint, weak and separating parts of old primers. Immediately before applying the actual mortar layer, the substrate should be moistened with water to a dull damp state and a pre-treated contact layer should be applied (see description below).

The contact layer should be made with ATLAS ADHER S. It has a liquid consistency and can be applied with a brush. It should be rubbed vigorously into the pre-moistened substrate and then the actual mortar layer should be applied using the wet-on-wet method. When the contact layer dries before the main primer layer is applied, a second application is required.

Preparation of the mortar
Pour the material from the bag into a vessel with the measured amount of water (proportions given in the Technical Data) and mix with a slow speed mixer with a mortar mixer until a uniform consistency is obtained. The mix is suitable for use immediately after mixing and should be used within 2 h.

Use of mortar as a repair compound
The mortar should be applied to the previously prepared and primed substrate using a trowel or smooth steel float. A layer of mortar may be applied in thicknesses up to 30 mm at a time.
When mixed with quartz sand (grain size up to 2 mm) at a weight ratio of 1:4 (sand : dry mortar), the layer thickness can be extended to 60 mm. In the case of supplementing larger cavities, it is possible to make successive layers from ATLAS ZW 330 mortar with a technological break of approximately 1 day.
After initial setting, the applied mortar layer can be rubbed down with a felt or polystyrene trowel or smoothed with a steel trowel. When preparing the substrate for ceramic tiles, the mortar should be trowelled sharply.

Use of mortar as a screed
The subfloor should be separated from the walls and other elements in the working area by an expansion joint profile. The size of the working fields should not exceed 36 m² and the side dimension should not be greater than 6 m.
Expansion joints should also be made in the thresholds of the rooms and around the supporting columns. Existing structural expansion joints of the subfloor should be transferred to the subfloor layer.
The mortar should be spread with a steel trowel.

Drying and care of the foundation
In order to ensure favourable setting conditions for the mortar, the freshly made surface should be sprinkled with water or covered with foil as required. Proper care leads to an increase in the strength of the product, but also prolongs the drying process. The drying time of the primer depends on the thickness of the layer and the heat and humidity conditions in the surroundings.

Finishing work
The bonding of tiles on the repair layer made of ATLAS ZW 330 mortar can be started according to the information provided in the TECHNICAL DATA table. Before commencing tiling work, the surface is recommended to be primed with one of the emulsions:
- ATLAS GRUNT NKP,
- ATLAS UNI-GRUNT or ATLAS UNI-GRUNT COLOUR,
- ATLAS UNI-GRUNT ULTRA.

Consumption

On average, approximately 15 kg of dry mix is used per 1m², for each 10 mm 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 production date on the packaging.

Important additional information

Mortar parameters presented in the TECHNICAL DATA and TECHNICAL REQUIREMENTS apply to unmodified mortar. The addition of quartz sand (in the case of application of layers of thickness from 31 mm to 60 mm), reduces the mortar's strength and prolongs its setting time.

Protect the executed surface during and immediately after the work from precipitation and excessive drying (if necessary, moisten with water or cover with foil).

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 Sheets represents basic guidance on the use of the product and does not exempt from the obligation to carry out the work in accordance with the rules of the art of construction and safety regulations. With the issue of this Technical Data Sheet, all previous ones are no longer valid. The documents accompanying the product are available at www.atlas.com.pl.

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