ATLAS ZW 330

fast setting leveling mortar

- high bonding and compressive strength
- reinforced with polypropylene fibres
- plastic consistency
- under tiles, finishing coats, plasters, screeds
- tiling just after a few hours

Use

Substrates repairs indoors and outdoors – enables filing gaps and cavities as well as leveling other substrate irregularities.
Execution of bonded screeds.

Types of repaired surfaces – cement and cement-lime plasters, concrete, aerated concrete, cement jointless floors, rough walls made of bricks and ceramic or silicate hollow blocks.
Type of finishing coats – ceramic cladding, finishing coats, thin-coat plasters/renders, floor panels, etc.

Properties

Enables quick start of successive operations – in standard conditions tiling just after approx. 5 hours (for layers 5 mm thick).
Reduces the consumption of adhesive mortars, plasters, screeds and floors.
Plastic consistency – working parameters ensure easy application and filling gaps in the repaired surface.
High mechanical strength – compressive strength min. 20.0 MPa, flexural strength min. 4.0 MPa.
Reinforced with polypropylene fibres which:
- reduce cracking resulting from shrinkage during the mortar setting,
- enable application of thicker mortar layers on vertical surfaces, with no slip effect,
- ensure uniform water distribution during drying.

No shrinkage cracks.
Wide range of layer thickness – from 3 up to 30 mm in a single operation – one may extend the layer thickness up to 60 mm after mixing the mortar with quartz sand (grain size up to 2 mm) in 1:4 weight ratio (quartz sand : dry mortar) - recommended when filling gaps and leveling horizontal surfaces.

Technical data

ATLAS ZW 330 is produced as a dry mix of high quality cement binder, quartz fillers and improvers.

Bulk density (of dry mix)	approx. 1.6 kg/dm^3
Mass bulk density (after mixing)	approx. 1.95 kg/dm^3
Dry density (after setting)	approx. 1.8 kg/dm^3
Mixing ratio (water/dry mix)	0.17 ÷ 0.22 l/1 kg 4.25 ÷ 5.5 l/25 kg
Contact coat	1 kg of dry mix + 0.12 l of water + 0.06 l of ATLAS ELASTIC EMULSION or ATLAS ADHER
Min./max. mortar thickness	3 mm/ 30 mm For wider gaps (from 31 mm up to 60 mm) quartz sand of grain size up to 2.0 mm can be added in 1:4 ratio (quartz sand : dry mortar)
Max. aggregate size	1.00 mm
Bonding	min. 0.6 MPa
Compressive strength	min. 20.0 MPa
Flexural strength	min. 4.0 MPa
Mortar preparation temperature, substrate and ambient temperature during work	from +5°C to +25°C
Pot life	approx. 2 hours
Open time	min. 20 minutes
Fixing the tiles	after 5 hours /5 mm of layer thickness after 10 hours /10 mm of layer thickness after 20 hours /20 mm of layer thickness after 48 hours/layer thickness above 20 mm
Panels installation	after 48 hours

The time shown in the table is recommended for the application in the temperature 23°C and humidity 50% (approx.).

Technical requirements

ATLAS ZW 330 conforms to PN-EN 998-1 and PN-EN 13813 standards. EC Declaration of Performance No. 167/CPR.

CE	PN-EN 998-1:2012 (EN 998-1:2010) PN-EN 13813:2003 (EN 13813:2002)
Factory made plastering mortar of specified properties, general-purpose (GP), for manual application	for indoor and outdoor use, on walls, ceilings, posts and partition walls
Cement-based screed CT-C20-F4	for indoor use
Water absorption	W1
Bonding	0.6 N/mm^2 - FP:B
Water vapour permeability coefficient (tabular value μ)	15/35 (EN 1748:2002, table A.12)
Thermal conductivity coefficient (average tabular value P=50%)	0.83 W/mK ($\lambda_{10, dry}$) (EN 1748:2002, table A.12)
Durability. Compressive strength decrease after 25 freeze-thaw cycles	≤ 15 %
Durability. Mass decrement after 25 freeze-thaw cycles	≤ 3%
Gross dry mortar density	≤ 1800 kg/m^3
Release of corrosive substances	CT
Compressive strength – class	C 20
Flexural strength - class	F 4
Reaction to fire - class	A1 $A1_{fl}$
Resistance to abrasion, water permeability, chemical resistance, water vapour permeability, acoustic insulation, thermal resistance, sound absorption	NPD
Release/content of hazardous substances	See: Safety Data Sheet

The product has been given the ITB Technical Approval No. AT-15- 9437/2015. Domestic Declaration of Conformity No. 167 of 06.03.2015.

Substrate repairs and installation of screeds

Substrate preparation - for substrate repairs
The substrate should be dry and sound, i.e. it should be strong enough and free from layers, which would impair the mortar bonding, in particular dust, dirt, lime, oil, grease, wax, bituminous substances and paints residues. Remove loose pieces and weak substrate elements mechanically, e.g. hack them off. Just before the application of the main mortar layer, the substrate should be moistened with water up to the matt-wet state. If improvement of bonding to the substrate is required, one should apply the contact coat (description below).

Substrate preparation - for bonded screeds
The substrate should be free from layers, which would impair the mortar bonding, in particular dust, dirt, lime, oil, grease, wax, bituminous substances and paints residues, poor or loosening pieces of old screeds. Just before the application of the main mortar layer, the substrate should be moistened with water up to the matt-wet state and the contact coat applied (description below).

Contact coat preparation
The contact coat can be prepared with one of the following methods:
- with ATLAS ZW 330 modified with ATLAS ELASTIC EMULSION in ratio: 1 kg of dry mix + 0.12 l of water + 0.06 l of ATLAS ELASTIC EMULSION,
- with ATLAS ADHER mortar.

The contact coat has liquid consistency and can be applied with a brush. Rub it well into previously moistened substrate, then apply the main mortar layer with "wet on wet" method. When the contact coat dries, apply another one before the application of the main mortar layer.

Mortar preparation
Pour the mortar from the bag into a clean container with the suitable amount of water (see Technical Data for ratio) and mix using a mixer with a drill until homogenous. The mortar is ready to use directly after mixing and should be used up within approx. 2 hours.

Mortar use - repair mass
Apply the mortar onto previously prepared and primed substrate with a trowel or a smooth steel float. The single mortar layer thickness should not exceed 30 mm. The layer thickness can be increased up to 60 mm after mixing the mortar with quartz sand (grain size up to 2 mm) in 1:4 weight ratio (quartz sand : dry mortar). After initial setting, the applied mortar layer can be floated with a felt or a polystyrene float or smoothed with a steel float. When preparing the substrate for tiling, float the mortar rough.

Mortar use - screed
The screed should be separated from walls and other elements within the application area with ATLAS EXPANSION JOINT PROFILES. The size of application area should not exceed 36 m^2 with sides length up to 6 m.
The expansions joints should also be executed at room thresholds and around load-bearing posts. The existing structural expansion joints should be transferred onto the screed layer. Spread the mortar with a steel float.

Screed drying and maintenance
In order to ensure favourable conditions for mortar setting, depending on needs, sprinkle the freshly applied surface with water or cover it with foil. Proper maintenance leads to increase of strength of product but also extends the time of drying. The time of drying of screed depends on the layer thickness and ambient thermal and humidity conditions. The use of screed (foot traffic) can start after approx. 8-10 hours and full load after approx. 3 days.

Finishing works
Follow the guidelines listed in the Technical Data section when fixing the tiles on the repair layer made of ATLAS ZW 330. Prime the surface with ATLAS UNIGRUNT before tiling.

Consumption

The average consumption is approx. 15 kg of dry mix/ 1 m^2 / 10 mm of layer thickness.

Important additional information

- The mortar parametres listed in the Technical data and technical requirements sections refer to unmodified mortar. The addition of quartz sand (for use with layers from 31 up to 60 mm thick) reduces the mortar strength and extends the time of setting.
- During application and directly after, the surface should be protected against precipitation and excessive drying (moist with water or cover with foil, if required).
- Tools must be cleaned with clean water directly after use. Difficult to remove residues of the set mortar can be removed with the ATLAS SZOP agent.
- Contains cement. May cause respiratory irritation. Causes skin irritation. Causes serious eye damage. May cause an allergic skin reaction. Keep out of reach of children. Avoid breathing dust. Wear protective gloves/protective clothing/eye protection/face protection. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or a rash occurs: Get medical advice/attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. Follow the instructions of the Safety Data Sheet.
- The mortar must be transported and stored in tightly sealed bags, in dry conditions (most preferably on pallets). Protect against humidity. Shelf life in conditions as specified is 12 months from the production date shown on the packaging. Content of soluble chromium (VI) in ready-to-use mix - ≤ 0.0002%.

Packaging

Paper bags: 25 kg
Pallet: 1,050 kg in 25 kg bags

The above information constitutes basic guidelines for the application of the product and does not release the user from the obligation of carrying out works according to engineering principles and OHS regulations.
At the time of publication of this product data sheet all previous ones become void.
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