



ATLAS DEKO M – type TM 5 decorative mosaic render – effect of natural stone

- perfect durability, resistance to washing, scrubbing and abrasion
- low absorptiveness, easy to keep clean
- unique compositions of dyed quartz aggregate
- wide range of outdoor and indoor use



Properties

ATLAS DEKO M is a line of mosaic renders made of advanced base: mix of acrylic water dispersions, hydrophobing agents, modifiers and specially selected natural and dyed aggregates (depending on the expected colour composition).

ATLAS DEKO M forms light and durable rendering coat of improved resistance to washing, cleaning and scrubbing.

Rich colour palette – can be applied on various substrates, gives unrestrained offer of designs of walls at exhibition halls, car showrooms, offices, flats, staircases, waiting rooms, halls, antechambers, façades of residential and public access buildings, etc. The effect is enriched with mica and brocade.

Great flexibility, resistance to mechanical damage – an bridge thermal stress and mechanical impacts owing to high content of specially selected dispersions of polymers. The render perfectly compensates stress resulting from thermal expansion of layers located beneath which can occur, for example, in strong sunlight.

Great operational durability – owing to the use of mix of acrylic dispersions, special admixtures and modifiers the product offers:

- improved coat durability,
- improved resistance to atmospheric factors and UV radiation,
- improved resistance to growth of microorganisms,
- long term aesthetic façade appearance.

BIO PROTECTION – high grade of hydrophobisation and very high content of shell-active capsule substances eliminate threat and form unfavorable conditions for growth of fungi, algae and lichen on the rendering coat surface.

Great surface hydrophobisation, self – cleaning ability – greatly UV – resistant hydrophobic layer efficiently reduces structural coat absorptiveness and allows for durable hydrophobing effect which prevents dust and dirt particles adhesion and allows for their possible wash off during precipitation.

Dark and intensive colours – dyed natural quartz aggregate used in the product offers wide range of choice and design modification. Therefore, it gives rich colour palette, also with dark and intensive shades, which meets trends and needs of users.

Great shade durability – owing to the use of aggregate dyed with polyurethane resins and special hybrids of inorganic and organic pigments of improved resistance to external factors.

DEKO M type	TM 5
appearance	natural stone effect
number of available render compositions	13
packaging 23.8 kg	component A – aggregate 16.2 kg component B – base in a bucket 7.6 kg
decorative additives	black mica or silver brocade (in ready-made mix)

Use

ATLAS DEKO M is used for outdoor and indoor application of decorative and protective rendering coats on existing and newly constructed buildings:

- in composite external thermal insulation systems (ETICS) with polystyrene boards (EPS),
- on even, appropriately prepared mineral substrates (e.g. concrete, traditional cement, cement-lime and gypsum plasters), plasterboards, gypsum-fiber boards, chipboards, OSB boards, well bonded paint coats (e.g. oil dado, etc.).

ATLAS DEKO M renders are recommended for:

- indoor use on surfaces exposed to intensive traffic and high operational loads (halls in schools, kindergartens, healthcare objects, offices, underground passages, etc.),
- outdoor use on surfaces exposed to high thermal loads, atmospheric factors action or those requiring frequent washing: on plinths, fences, retaining walls, posts.

PLACE OF USE	
façade of thermal insulation system with polystyrene	+
façade of thermal insulation system with XPS boards	+
façade of a single-leaf wall	+
wall indoors	+

OBJECT TYPE	
residential housing	+
public access, educational, office, healthcare	+
commercial and service	+
industrial warehouses	+
infrastructure	+
outbuildings	+
passive buildings	+
energy efficient buildings	+

OBJECT LOCATION	
city and urban areas	+
industrial, investment and economic zones	+
rural and agricultural areas	+
damp and wet areas, close to water reservoirs	+
close to forests and clusters of greenery	+
shaded places	+

SUBSTRATE TYPE	
base coats of thermal insulation systems listed above	+
concrete	+
traditional cement, cement-lime plasters applied on walls made of brick, ceramic, cellular or silicate blocks and hollow blocks	+
gypsum plasters, plasterboards (indoors)	+

Technical data


Density	approx. 1.6 g/cm ³
Diffusive resistance	0.14 m ≤ S _d < 1.4 m
pH*	8
Temperature of use*	from +5°C up to +30°C
Relative air humidity*	< 80%
Application in low temperature (above 0°C) and in high humidity (above 80%)	with ATLAS ESKIMO added
Application in high temperature (up to +35°C)	with ATLAS HOTER DL added
Time of initial render drying**	approx. 15 minutes
Time of render drying**	approx. 24 hours

*) mass preparation, substrate and ambient before and during application and during coat drying

**) at temperature +20°C and humidity 60%

Technical requirements

ATLAS DEKO M type TM5 conforms to PN-EN 15824:2010 standard. EC Declaration of Performance No. 049/CPR.

	PN-EN 15824:2010 (EN 15824:2009)
Thin-coat acrylic render, water – dilutable	for use on internal and external walls, posts and partition walls
Reaction to fire – class	B-s1, d0
Water vapour permeability – category	V ₂ – medium
Water absorption – category	W ₂ – medium
Bonding	≥ 0.35 MPa
Durability (resistance to freeze-thaw cycles)	According to the standard PN-EN 1062-3:2008, for absorption W ₂ ≤ 0.5 kg/m ² ·h ^{0.5} testing of freeze – thaw resistance is not obligatory.
Thermal conductivity coefficient (average tabular value, P=50%)	0.67 W/mK (λ _{10,dr}) (EN 1745:2002 tab. A.12)

ATLAS DEKO M type TM5 is listed in the following approvals for thermal insulation systems:

System name	Technical Approval No.	Certificate No.
ATLAS ETICS	AT-15-9090/2014	FPC-ITB-0562/Z

The product has been given the Radiation Hygiene Certificate.

Rendering

Substrate preparation

The substrate should be:

- **stable** – sufficiently rigid and appropriately long stabilized and primed
- **dry**,
- **even** – irregularities and gaps should be filled with, e. g. ATLAS ZW 50, ATLAS ZW 330, ATLAS CEMENT PLASTER or adhesive mortars used for application of base coats of thermal insulation systems; prime the surface with ATLAS UNI-GRUNT emulsion before the substrate repairs (NOTE! By virtue of fine aggregate, special attention should be paid to the substrate evenness as any irregularities will be transferred on the rendering coat surface),
- **clean** – free from layers which would impair render bonding, especially dust, dirt, lime, oil, grease, wax, residues of oil and emulsion paints; substrates infected by biological corrosion (fungi, algae, etc.) must be cleaned with ATLAS MYKOS agent.

Detailed substrate requirements:

Substrate type	Stabilization	Priming
Base coat of thermal insulation system made of ATLAS STOPTER K-50 mortar	min. 3 days*	No priming mass required
Base coat of thermal insulation system made of other Atlas adhesive mortars	min. 3 days*	ATLAS CERPLAST**
Freshly applied cement plasters made of Atlas ready-made plastering mixes, traditional cement and cement-lime plasters	min. 7 days/1 cm of thickness* moisture content 4%	Initial priming – ATLAS UNI-GRUNT Main priming – ATLAS CERPLAST**
Concrete	min. 28 days* structural moisture < 4%	ATLAS CERPLAST**
Well bonded to the substrate paint coatings indoors	no requirements	ATLAS CERPLAST**
Gypsum substrates	moisture content < 2%	Initial priming – ATLAS UNI-GRUNT (use ATLAS UNI-GRUNT PLUS for cement-fibre boards) Main priming – ATLAS CERPLAST**
Plasterboards and cement-fiber boards, stably fixed in accordance to manufacturers' guidelines and engineering principles		

*) note: for setting conditions T=+20°C, air humidity 50%

**) it is advisable to use ATLAS CERPLAST of recommended colour (table with appropriate priming mass colour can be found in IMPORTANT ADDITIONAL INFORMATION section)

Plasters applied beneath ATLAS DEKO M should be floated rough, do not extract "bleed" water in case of gypsum plasters. If gypsum plaster was classically grinded during application its surface should be made matt.

Render preparation

ATLAS DEKO M – type TM 5

The set consists of two components:

- component A – composition of dyed aggregates in 16.2 kg bags
- component B – base in a bucket (7.6 kg)

Aggregate should be poured into a bucket with base. So prepared render should be mixed thoroughly.

Aggregates

compositions of dyed aggregates used for preparation of TM5 type render	grain size [mm]
Basalt 001	0.1 – 1.2
Basalt 002	0.1 – 1.2
Basalt 003	0.1 – 1.2
Granite 001	0.1 – 1.2
Granite 002	0.1 – 1.2
Granite 003	0.1 – 1.2
Granite 004	0.1 – 1.2
Granite 005	0.1 – 1.2
Gneiss 001	0.1 – 1.2
Gneiss 002	0.1 – 1.2
Gneiss 003	0.1 – 1.2
Gneiss 004	0.1 – 1.2
Gneiss 005	0.1 – 1.2

Mass preparation

Preparation of rendering mass

Stir the mass directly before use in order to unify its consistency.

Mass application and render smoothing

Apply the mass with a smooth stainless steel trowel (standard or venetian one), keep the coat thickness same as the aggregate grain size, smoothen in one direction simultaneously. Lead the trowel at the possibly smallest angle against the smoothened surface in order to avoid slight irregularities. Collect excessive material back into a bucket and remix.

NOTE! By virtue of fine aggregate irregular substrates may require two coats of render. The second coat should be applied when the first one dries, i.e. after approx. 24 hours. Irregular smoothening can cause local differences of shade of the rendering coat (resulting from patchy aggregate distribution).

Manual mass application and render smoothing (use with templates)

In order to form additional visual effect, one can use self-adhesive cardboard templates (available on custom order). The template projects shape of natural stone or brick on walls. In order to strengthen the effect formed with a template, it is recommended to use ATLAS DEKO M and ATLAS CERPLAST priming mass of contrastive shades.

When the priming mass dries, stick the templates upon the wall, make sure they adjoin precisely and bond well to the substrate. Next, apply ATLAS DEKO M render as described above. Just after the render application and smoothening, remove all the templates – ATLAS CERPLAST will imitate grout between surfaces imitating stones.

Machine mass application and render smoothing

The mass application is carried out in two phases:

Phase 1 – contact coat. The first render coat should be applied manually with a trowel. Apply the mass with a smooth stainless steel trowel (standard or venetian one), keep the coat thickness same as the aggregate grain size, smoothen in one direction simultaneously. Lead the trowel at the possibly smallest angle against the smoothened surface in order to avoid slight irregularities. The first render coat can also be applied mechanically.

Phase 2 – top coat. The second coat should be applied after 30 – 40 minutes since application of the first one. It is sprayed from distance of approx. 1 m with a suction fed spray gun, use nozzle 6 mm and operating pressure 0.5 – 3.0 atm. Just before spraying, 5% of water should be added to the render and whole mass thoroughly stirred in order to unify consistency. The render should be applied upon contact coat, with “delicate” coat imitating irregular texture of broken natural stone. It is advisable to lead trial spraying in order to set optimum operating parameters. Note! Texture and visual reception of render can depend on application parameters (distance between nozzle and substrate, pressure level, mode of nozzle move, amount of material applied).

Consumption

Average consumption of ATLAS DEKO M type TM5:

Manual application: 2.4-3.6 kg/m ²	Machine application: I coat (manual) - 2.4 – 3.6 kg/m ² II coat (machine) – approx. 0.7 kg/m ²
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Packaging

Type	Packaging
ATLAS DEKO M type TM5– 23.8 kg	Plastic buckets with base 7.6 kg Paper bags with compositions of aggregates 16.2 kg

Important additional information

Generally, beneath particular colour compositions, it is advisable to use either white (not dyed) or dyed (clinker, graphite, sand) ATLAS CERPLAST priming mass:

ATLAS CERPLAST priming mass colour	DEKO M colour – type TM5
CLINKER	GNEISS 05
GRAPHITE	GRANITE 05 BASALT 02 BASALT 03 GNEISS 03 GNEISS 04
SAND	GNEISS 01 GNEISS 02
WHITE	GRANITE 01 GRANITE 02 GRANITE 03 GRANITE 04 BASALT 01

- After application the render shows milky-white colour and gets proper shade after drying. High air humidity and low temperature can extend the time of setting and can cause change of the colour shade.
- At constant contact with water, the render can get milky-white top coat which disappears when the render surface dries. It is not recommended to apply the render upon surfaces exposed to prolonged water or damp action (e.g. on horizontal surfaces or those with slight slope, in ponds, etc.) or on elements without appropriate damp proofing.
- In order to avoid differences in colour shades:
 - an individual surface should be coated with render of the same base manufacturing date,
 - when a composition requires aggregates from a few bags, they should be of the same manufacturing date,
 - an individual surface should be coated during one technological cycle,
 - the mass should always be stirred before use.
- The maximum surface possible to coat during one technological cycle (application and smoothening; for particular substrate type and weather conditions) should be established experimentally.
- Apply the render on adjoining application areas with the “wet on wet” method, prevent the smoothened rendering coat from drying. Otherwise the seams will be visible. Technological breaks have to be planned in advance, e.g. in corners and angles of a building, under rainwater pipes, on lines of contact of two colours, etc.
- Protect the rendered surface, both during mass application and drying, against direct sunlight, wind and precipitation.
- Obligatorily use scaffolding covers (mesh) for application outdoors. If air and substrate temperature just before application and during the render drying exceeds +25°C, then the application should be limited to early hours only. Non-conformance with these guidelines may lead to insufficient binder transparency at points exposed to strong sunlight or direct action of temperature higher than accepted in this data sheet.
- Time of drying depending on substrate type, temperature and relative air humidity is approx. 24 hours. In high humidity and temperature close to +5°C the time of drying can be longer.
- Tools must be cleaned with clean water directly after use. Difficult to remove residues of the set mass can be removed with ATLAS SZOP 2000 agent.
- Aggregate should be transported and stored in sealed original and labeled packages in dry conditions, most preferably on pallets. Avoid direct sunlight. Keep in dry, cool and well ventilated room, away from incompatible materials, beverages and food. Protect against humidity.

- Base and ready-to-use render should be transported and stored in cool, dry, well ventilated room in tightly sealed, labeled original container. Protect against direct sunlight, sources of heat, hot surfaces and open flame. Temperature of storage: from +5°C up to +30°C. Protect against freezing. Stir before use. No negative interaction known when conditions as above are kept. Render shelf life is 12 months from the date of the base manufacturing.
- Harmful to aquatic life with long lasting effects. Keep out of reach of children. Read label before use. Avoid release to the environment. Dispose of contents/ container to appropriately labeled containers designed for selective waste treatment, emptied by an authorized company. Follow the instructions of the Safety Data Sheet.

*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. Current technical documentation available on www.atlas.com.pl/en.
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