

ARGATHERM

Finishing smoother lightened with thermal mineral filler and natural micro-fibres.

Finishing smoother, lightened with finest mineral expanded fillers with an internal micro-porous structure that confer an extraordinary lightness and thermal-insulating properties to the product. In addition, *Argatherm* is composed of air binders, pure limestone powder (grain size 0-0.6 mm) and natural micro-fibres (200 µm), totally harmless for the environment and for human health. The right grain size selection, the micro fibre-reinforced matrix and the use of specific additives guarantee a high workability during the application and an excellent adhesion on supports. Suitable for indoor and outdoor applications, it guarantees an excellent covering level of the substrate and a finish like "civil finish" with the use of a sponge trowel or a smoother finish with a plastic trowel.

BENEFITS

- Light and with thermal features: category T2 ≤ 0.2 W/mK.
- Natural raw materials, harmless for the environment and for human health.
- Smoother fibre-reinforced with natural, eco-friendly and non toxic micro-fibres (200 µm)
- Thermal features and high vapour permeability thanks to the micro-porous structure of natural fillers and air binders.
- In combination with *Diathonite* plasters, it guarantees a high thermal- hygrometric comfort and high insulation performances.
- It avoids moulds formation thanks to the anti-bacterial properties of the lime.
- High workability during the application.
- It can be applied with a thickness from 2 mm to a maximum of 10 mm.

YIELD

1.2 \pm 10% kg/m² per mm of thickness.
On *Diathonite* plasters 3.6 \pm 10% kg/m² for 3 mm thickness.

COLOUR

White.

APPLICATION FIELDS

Smoother for indoor and outdoor suitable to finish walls and ceilings, *Diathonite* plasters (see technical data sheets), old or new plasters, concrete substrates or substrates made of lime and cement.

Argatherm can be used on all kind of supports where the finishing layer cannot be directly applied.

The high lightness and breathability, together with antibacterial properties of hydrated lime, create a healthy environment and a high living comfort.

Argatherm is a natural product and it is suitable where eco-friendly material are needed.

PACKAGING

25 kg (55.11 lb) paper bag.
Pallet: 56 bags (1400 kg – 3086.47 lb).



Diasen srl

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EN 998-1

Specifications for mortars for masonry - Part 1: Mortar for internal or external plasters

Thermal conductivity:	λ 0.128 W/mk (T2 Category)
Bulk density:	1050 \pm 10% kg/m ³
Compressive strength:	≥ 15 N/mm ² CS IV
Fire reaction:	A1 class
Capillary water absorption:	category W0
Vapour permeability coefficient:	$\mu \leq 15$
Durability (freeze- thaw):	evaluation based on valid arrangements where the mortar will be used.



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Whereas all indications and recommendations supplied herein are stated to the best of our experience and knowledge, they should be considered as indicative only and should be confirmed by exhaustive practical applications. Diasen doesn't know the peculiarity of the processing, or the characteristics of the support. Therefore the applicator should carry out preliminary tests, to verify the suitability to the foreseen application, and in any case he will take the responsibility of the intended use. In case of uncertainties or doubts, please contact the company's technical department, provided that this is only a simple assistance for the applicator: he should have the appropriate capabilities and experience to determine the more suitable solution. Always respect the latest update of the technical sheet available on www.diasen.com.

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Technical Data		
Features		Unit
Yield	1.2 ± 10% kg/m ² per mm of thickness. On <i>Diathonite</i> plasters 3.6 ± 10% kg/m ² for 3 mm thickness.	kg/m ²
Aspect	Premixed powder	-
Colour	white	-
Density	1050 ± 10%	kg/m ³
Grain size	0 – 0.6	mm
w/c ratio	0.26 – 0.28 l/kg 6.5 - 7 l per bag (25 kg) 1.72 – 1.85 gal per bag (55.11 lb)	l/kg gal/lb
Application temperature	+5 /+30 +41/+86	°C °F
Break time of the mixture	5	minutes
Drying time (T=20°C/68°F; R.H. 40%)	5 - 7	days
Storage	12 months in original package and in dry place	months
Packaging	25 kg (55.11 lb) paper bag	Kg - lb

Final performances		Unit	Regulation	Result
Thermal conductivity (λ)	0.128	W/mK	EN 12667	T2 category
Vapour permeability coefficient	$\mu \leq 15$	-	EN 1015-19	-
Coefficient capillarity water absorption (C_m)	-	-	EN 1015-18	W0 category
Apparent mass density of fresh mortar	1270 ± 10%	kg/m ³	-	-
Apparent mass density of hardened mortar	1150 ± 10%	kg/m ³	-	-
Average compressive strength at 28 days	≥ 15	N/mm ²	EN 1015-11 EN 1504-3	class CS IV class R2
Fire reaction	Class A1	-	EN 13501-1	-

The above data even if carried out according to regulated tests, are indicative and they may change when specific building site conditions vary.

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STORAGE

Store the product in its original containers and in dry places, away from sunlight water and ice, at temperatures higher than +5°C (+41°F). Storage time: 12 months.

PREPARATION OF SUPPORT

The substrate must be completely hardened and resistant enough. The surface must be thoroughly clean, well consolidated, without debris or detaching parts.

Before the product application, it is recommended to cover doorsteps, window fixtures and each element that will not be coated.

Diathonite plasters or new plasters

It does not need primer, the application can directly be performed on the support, previously wet.

Old plaster

Make sure that the plaster is resistant and well bonded to the support, otherwise, partially or totally remove it and re-make it.

In case of painted plasters, according to the wide range of paints on the market, it is recommended to perform an adhesion test to verify the suitability of the application or the need to use the primer *Aquabond* (see technical data sheet).

Generally, on rough plasters, it is possible to directly apply *Argatherm*.

Concrete

In case of damaged or crumbly concrete, consider the restoration with *Rebuild⁴⁰ R4* (see technical data sheet).

MIXING

According to the water absorption degree of the support and to environmental conditions, it is recommended to dose the right amount of water that is necessary to obtain the correct adhesion. The specified amount of water is indicative.

Add about 26% - 28% of clean water, about 6.5 – 7 litres (1.72 – 1.85 gal) per bag of *Argatherm* (25 kg – 55.11 lb). Mix with drill mixer or automatic mixer until the product is homogeneous and without clumps.

After that, wait for 5 minutes and then mix again and use it.

Do not add other substances to the product.

APPLICATION

Hand application

1. It is **FUNDAMENTAL** to wet the support, in particular during summer season and on masonry exposed to the sun. If the surface was treated with a primer, there is no need to wet the support.
2. Apply *Argatherm* by steel spatula with rounded edges in two crossed coats, until reaching an indicative thickness of 1.0 – 1.5 mm per layer.
3. The first coat has the function of filling substrate porosity.
4. The second layer must be applied when the previous one is compact to the touch (after about 12/24 hours at 20°C / 68°F and 40% relative humidity), until reaching the expected thickness.
5. Wet the smoother before the application of the second layer.
6. When the applied smoothing layer is still moist, finish with a sponge or plastic trowel, according to what type of smoothing is to be realised.

Application with plastering machine

Argatherm can be applied with plastering pump.

The setting can change according to the chosen machine.

1. It is **FUNDAMENTAL** to wet the support, in particular during summer season and on masonry exposed to the sun. If the surface was treated with a primer, there is no need to wet the support.
2. Load the bags content inside the hopper and adjust the flow-meter of the machine.
3. Apply *Argatherm* in two crossed coats until reaching an indicative thickness of about 1.0 – 1.5 mm per layer.
4. The second layer must be applied when the previous one is compact to the touch (after about 12/24 hours at 20°C / 68°F and 40% relative humidity), until reaching the expected thickness.
5. Wet the smoother before the application of the second layer.
6. When the applied smoothing layer is still moist, finish with a sponge or plastic trowel, according to what type of smoothing is to be realised.

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DRYING TIME

At a temperature of 20°C/68°F and 40% relative humidity, the product dries in 5 - 7 days.

- Drying time is influenced by environmental relative humidity and by temperature and it may significantly change.
- Temperature lower than + 5°C/ 41°F and higher than +30°C/ 86°F, in the following 24 hours, can change the drying time and can alter mechanical performances of the smoother.

For outdoor applications:

- Protect the product for 48 hours from rain, ice and extreme evaporation.
- In case of high temperature, direct sunlight, or strong wind, it is necessary to wet the smoother 2/3 times per day for the first 2/3 days after the application.
- *Argatherm* must be protected from weathering agents with breathable and transparent finish (*Diathonite Cork Render*, *Acrilid Protect Coating*).

Indoor applications:

- Ventilate the room during the product application and drying.
- *Argatherm* can be painted with *Diathonite Cork Render*, *C.W.C. Stop Condense* or *Limepaint*.

SUGGESTIONS

- Do not apply at environmental temperature and at support temperature lower than +5°C (+41°F) and higher than +30°C (+86°F).
- If *Argatherm* is used as finishing of *Diathonite* plasters, perform the application at least 15 days after the application of the last layer of the plaster.
 - Do not apply over painted substrates or treated with waterproofing, over gypsum or scagliola-gypsum, on wood, metal or plastic supports.
- If applied on panels, it is recommended to use the specific smoother *Argacem HP* (see technical data sheet).
- If applied indoor, it is necessary that the external surface do not absorb water. Otherwise, treat the surface with *BKK Eco*.

For outdoor applications:

- During summers season apply the product in the cooler hours of the day, away from sun.
- Do not apply with imminent threat of rain or ice, in conditions of strong fog or with relative humidity higher than 70%.

- If left exposed, apply a breathable transparent and water-repellent siloxane such as *BKK eco*.

FINISHING

For external applications, *Argatherm* can be painted by applying the *Fixative D20* (see technical data sheet) and following one of the following finishes: *Colored Plasterpaint*, *Diathonite Cork Render*, *Decork*, *Decork Alfareflex 0.2*, *Acrilid Protect Coating*, *Colored Argacem*.

If you want to have a completely smooth surface outside, *Argatherm* must be coated with *Argacem Ultrafine* (see technical data sheet) which must then be painted by applying the *fixative D20* and then followed by the *Acrilid Protect Coating* or *Colored Plasterpaint* finish.

For internal applications, *Argatherm* can be painted by applying the *fixative D20* and then one of the following finishes: *Decork*, *C.W.C. Stop Condense* or *Limepaint*. If you want to have a completely smooth surface inside, *Argatherm* must be coated with *Argacem Ultrafine* which will be painted by applying the *fixative D20* first, then the *Limepaint* or *C.W.C. Stop Condense*.

Inside you can leave *Argatherm* exposed, but it must be covered with *BKK Eco* (see technical data sheet).

CLEANING

Wash tools with water before the product hardens.

SAFETY

While handling, always respect the instructions described in safety data sheet. Always use protective gloves and anti-dust mask.

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