



SCALAMID

PRODUCT COMPOSITION:

The SCALAMID boards consist of following components:

- Portland concrete
- mineral bonds (fillers)
- natural organic reinforcing fibres
- synthetic organic reinforcing fibres
- double layer of acrylic dispersion agent, water-based, with additional UV treatment on the top side of the board
- polyethylene wax on the underside of the board

PRODUCTION METHOD:

The SCALAMID boards are produced on the Hatschek machine, they are placed in a high-pressure hydraulic press where they are pressed and then dried with air. The surface of the board is smooth and matt. All the boards are sanded on both sides. On the top side the boards are finished with a double layer of an acrylic, dispersion agent. The reverse side of the board is finished with polyethylene wax. All Scalamid boards are resistant to UV rays.

Dimensions and tolerance			
Dimensions	Thickness (mm)	Width (mm)	Length (mm)
Uncut production format	6/8/10/12	1260	3220
Maximum use format	6/8/10/12	1200	3200
Weight			
Thickness	Weight	1260 x 3200mm	1200 x 3200mm
6 mm	13,1 kg/m ²	52,7 kg/board	50,3 kg/ board
8 mm	16,8 kg/m ²	67,6 kg/ board	64,5 kg/ board
10 mm	20,5 kg/m ²	82,5 kg/ board	78,7 kg/ board
12 mm	24,2 kg/m ²	97,4 kg/ board	92,9 kg/ board
Tolerance after calibration			
Thickness	%		± 2
Length	%		±0,2
Width			±0,2
Straightness of edges			
Long edge	mm/ 1m		1,0
Short edge	mm/ 1m		0,5

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COLOURS:

The natural grey SCALAMID board is fully covered with polymer paint containing nanocomponents, selected from standard colours and over 2000 NCSRc and RAL colours. As a result the boards have a smooth surface that is resistant to moss, dirt and impacts. The use of inorganic polymeric paints allows to obtain resistance to UV radiation.

The colours shown in the table may slightly differ from the actual colours. It is recommended that the final selection of colours of the boards is based on the samples of the boards. It is possible to order special colours. Because small colour differences may occur, we recommend to submit one order for the whole facility.

It is recommended to perform the visual inspection of the product in daylight, without the use of optical instruments, at a minimum distance of 1 meter from the surface of the boards. Minor changes on the surface of the boards that do not affect the technical parameters of the board and the color durability are acceptable.

The colour tolerance is measured according to the CIELAB model. The colour deviations are as follows:

$$\Delta L^* = 12,00, \Delta a^* = 11,00, \Delta b^* = 11,00$$

The colour deviation may differ depending on the angle of light incidence and the angle of view.

Colour durability table according to PN-EN ISO 4892-2:2013

l.p.	Colour	Gray scale discoloration according to PN-EN 20105-A2:1996
1	Monocolor, digital print	4-5

TECHNICAL PROPERTIES:

Average values in accordance with a harmonised standard:

PN-EN 12467 Flat fibre cement sheets. Product specification and test methods.

Tests according to the Factory Production Control.

Technical properties			
Dry state density	Stan suchy	PN-EN 12467	$\geq 1,75 \text{ g/cm}^3$
Bending resistance	⊥	PN-EN 12467	30,0 N/mm ²
	//	PN-EN 12467	22,0 N/mm ²
Modulus of elasticity		PN-EN 12467	12 000 N/mm ²
Stretching at humidity	30-95%		1,0 mm/m
Porosity	0-100%		>18 %

Classification		
Durability	PN-EN 12467	Kategoria A
Strength	PN-EN 12467	Klasa 5
Fire resistance	PN-EN 12467	A1

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Type of test		
Water impermeability	PN-EN 12467	OK
Resistance to warm water	PN-EN 12467	OK
Resistance to soak – dry	PN-EN 12467	OK
Resistance to freeze – thaw	PN-EN 12467	OK
Temperature expansion coefficient	α	< 0,01 mm/mK
Heat conduction coefficient	λ	0,6 W/mK

ADVANTAGES:

If you follow the instructions for the use and installation of SCALAMID boards, they have the following properties:

- fire safety (non-flammable material, no danger of ignition or spread of fire)
- acoustic isolation
- resistant to extreme temperatures
- water tightness
- resistant to many living organisms (fungi, bacteria, insects, pests, etc.)
- resistant to many chemicals
- environmentally friendly, no harmful gas emissions
- possibility of wall finishing without the use of ceramic lining
- easy to process (easy to cut, low weight, easy screwing of screws without damaging the edges)
- printing with any pattern and colour chosen by the customer
- the product does not contain asbestos

USE:

Facade, wall: external and internal wall lining, balcony panels, balustrade fillings, soffits, garden spans,

Floor: floor panels, large-format floor tiles.

APPLICATION DATA:

Both sawing and drilling must take place in a dry environment. For decorative applications, filings and shavings must be removed immediately from the board with a soft microfibre cloth because if unremoved, they can leave permanent stains. During mechanical processing of the boards, a suitable dust-absorbing device should be used. If dust emission is limited, the use of a dust mask is recommended (according to EN 149).

Cutting / sawing:

When cutting / sawing, the board must be supported in such a way that it does not hang up. The board must be supported stable and not vibrate. The board has to be free from stress and vibration to ensure good cutting quality. Cutting in a wrong way may lead to the board delaminating on the edge.

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- Stationary, slow-speed saw with cemented-carbide toothed blade or high-speed saw with diamond blade, toothless.
- Manual circular saw (with guide), slow-speed, with cemented carbide tooth blade or high-speed saw with diamond blade, toothless.
- Jigsaw with cemented-carbide toothed blade

The edges must be smoothed with sandpaper (P80) after sawing.

Drilling:

The board should be supported around the drilled hole (e.g. with a wooden pad). Holes for rivets or screws should be drilled with a special hardened fibrous cement steel drill bit.

MOUNTING PARTS:

Depending on the application it is possible to use following mounting parts (you will find more information at: instructions for use):

- Glue: must be used in accordance with the instructions for use and the warranty conditions of the glue supplier.
- Screws: can only be used after prior drilling of the holes
- Rivets: can only be used after prior drilling of the holes
- Invisible installation system (see installation instruction)

Sealants:

It is recommended to use only neutral kits. Non-neutral silicones and polysulphide rubber can cause stains.

TRANSPORT AND STORAGE:

The boards are packed on pallets. During the transport they should be covered with a protective foil. The boards must be stored horizontally and laid on a flat surface. The boards must always be supported in such a way that they don't hang up. The boards must be kept in a dry, ventilated place. If they are stored outdoors, they must always be protected from rain by an impregnated tarpaulin or foil. If the boards get wet during the packaging process, the whole packaging should be removed and placed so that drying is possible. It is recommended to let the boards to acclimatize in the space in which they are to be used. The board must be lifted from the stack by two persons and then moved vertically.

HEALTH AND SAFETY:

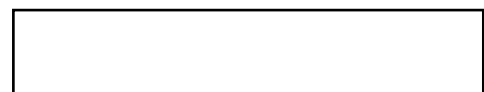
Dust may be generated during plate processing and may irritate the respiratory system and eyes. In addition, prolonged exposure to inhalation of dust can lead to lung disease and increases the risk of lung cancer. Adequate dust removal or ventilation should be provided, depending on the room in which the work is carried out or the equipment used. Fiber-cement board does not contain asbestos.

MAINTENANCE AND CLEANING:

In case of small dirt, wash with household detergent or soft soapy solution, rinse with clean water. Graffiti can be easily removed.

RECYCLING:

SCALAMID panels are environmentally friendly and can be fully recycled.



Research and development manager