## SLATE LITE the future of stone.

## DATASHEET: SLATE-LITE

## PRODUCT

Slate-Lite consists of an approx. 0.1 - 1.4 mm thin stone layer and a carrier material made of a polyester reinforced with glass fibers to ensure the stability of the product.

## MATERIAL COLOR AND COLOR DEVIATIONS

Natural stone is an absolutely timeless, natural product that has developed within millions of years. Deviations in coloration and pattern may therefore occur.

However, we strive to provide you with a product that is as uniform as possible, with a strong resemblance in coloration and texture. For large areas, contact us to obtain a color scheme that is as homogeneous as possible. We also offer a photomatching service.

For available colors and decors, please refer to our current catalog, sample booklets or online store.

## MAIN COMPONENTS

Stone layer approx. values in %		Back approx. values in %
Oxygen (O) Carbon (C) Silicon (Si) Aluminum (Al) Iron (Fe) Potassium (K)	44,6 31,0 13,0 5,6 3,4 2,4	73,0 26,0

## FORMALDEHYDE

Slate-Lite is formaldehyde-free.

## STANDARD SIZES

Standard format: 1,220 x 610 mm Large formats: 2,400 x 1,200 mm 2,800 x 1,200 mm All three sizes are available in most decors and mostly in stock. For exact availabilities please contact our sales department.

\*) Please note that size deviations of ±1.5 mm in width, length or diagonal are possible due to production.

## WEIGHT

approx. 1.5 - 2.8 kg/m<sup>2</sup>

TOTAL THICKNESS

approx. 1.5 - 2.5 mm

## DENSITY

1,45 kg/m<sup>2</sup>

## EXTENSION

0.5 - 0.8 mm (at a temperature variation of 90°C on the linear meter)

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## TEMPERATURE RESISTANCE

up to 120°C

**BENDABLE RADIUS** 

approx. 5 cm

TEST ACCORDING TO ASTM / C-121

Water absorption of the unsealed material + 2.5%.

## UV RESISTANCE

"Weathering" results of testing are little or minimal uniform variation in coloration.

Test method: Resistance to UV radiation (UV-B) according to DIN EN ISO 11507 Test cycle: 4 hours; irradiation 50°C / 4 hours; thawing 40°C Test duration: 1,000 hours with evaluation after 250h, 500h, 750h Evaluation: color change according to DIN EN ISO 11664-4, Sp62 Fa. X-Rite Measuring geometry: d/8°, illuminant: D65

## VOC EMISSIONS TEST

Slate-Lite achieved category A + in all emission classes in the test.

As an example, we tested the Falling Leaves decor - due to the extremely low measured emissions, the test institute was even able to end the test early.

## FIRE CLASSIFICATION

Slate-Lite has achieved EU class Cfl-s1 (according to EN 13501-01 for floor coverings) or B1 (according to DIN 4102).

Fire class according to US standard: C (ASTME84).

Slate-Lite is also available to order as EU class Cs3d0 (Walls). For further questions please contact our sales department.

## ABRASION TEST

Abrasion test according to DIN EN ISO 10545-7: Class 1 was achieved here. Silver Grey were tested.

Class characteristics: Light use, barefoot or with slippers

## SLIP CLASS

Slate-Lite has achieved slip classes R9 (for variegated slate), R10 (for mica slate), and R11 (with Silver Grey).

## **CE MARKING**

Slate-Lite has been approved according to CE standard: DIN EN 15102:2011-12 DIN EN 15102:2008+A1:2011

## SELF ADHESIVE MATERIAL

Some sizes and decors are available as a variant with self-adhesive film. Adhesive strength: 18N / 24MM @ 180° peel.

Self-adhesive material is suitable for indoor and non-wet area use only. Please note that a subsequent change of position is not possible with self-adhesive material.

## PROCESSING TEMPERATURE

Recommended processing temperature:  $10^{\circ}$ C to  $35^{\circ}$ C.

#### FIELDS OF APPLICATION

Doors and gates, stove construction, ceilings, floors, walls, roofs, wet areas (shower/bath), furniture and as facade cladding.

Note: The limestone decors are not suitable for wet and outdoor use! Please do not use the marble decors in chlorinated water. Use as a floor covering is always at your own risk and at your own discretion!

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## SUBSTRATES

Wood, metal, glass, sheetrock, concrete, fiber cement, lightweight boards, etc.

Please observe the instructions and data sheets of the adhesives or plastics used for substrate preparation.

## PROCESSING TOOLS

Commercial tools: sawing with wood saw blade and drilling with metal or wood drill. For industrial processing, we recommend a carbide or diamond saw blade with a minimum toothing of 72 teeth.

If painter's masking tape is to be used, care must be taken not to leave adhesive traces. Do not use tape on surfaces that have already been sealed, as well as tape that is too adhesive, and do not allow the tape to remain on the material for too long.

Please test any adjustments to the material and tools used on an inconspicuous area or sample beforehand. Only process sheets that have been able to lie flat and are completely relaxed!

## PRESSING ON WOOD, RIGIPS AND HARDFIBERS

Pressing with 1-component PU adhesive (polyurethane) to achieve the best results. Thickness-compensating allowances: backing paper 120 g/m<sup>2</sup> or Linolium. Use additional 7-mm rubber inserts with a hardness of 50 Shore. Carefully select the pressing pressure depending on the design of the press.

## CLEANING

All natural stone surfaces must be wiped regularly with a damp cloth despite impregnation or sealing. Use a lint-free cloth for this purpose.

Important note: Acid cleaners can damage the surface of the stone!

## SURFACE PROTECTION

For detailed information on our impregnations and sealers, please refer to the respective product data sheets and instructions.

At the end of this data sheet in the appendix you will find grid tests of various test substances.

## ADHESIVE PRODUCTS

For detailed processing instructions for Slate-Lite, please refer to the respective product data sheets and instructions.

For bonding, we generally recommend Slate-Lite Extreme Adhesive, which is available directly from us. This can be used both indoors and outdoors, as well as in wet areas. For bonding in areas with temperatures from 90°C to 127°C (fireplace/oven), we recommend the use of a different adhesive, e.g. Hranifix Premium.

Slate-Lite is always bonded with polymer adhesives using a B3 notched trowel.

## SILICONE SEALANTS

If you want to use silicone for sealing or as a finishing edge, please use Ottoseal natural stone silicone, as other silicones may not adhere correctly.

## STORAGE

The material should be stored horizontally and flat to avoid deformation.

The material should be stored in a dry, frostfree place protected from sunlight. Severe temperature fluctuations should be avoided as this could deform the material.

## QUALITY ASSURANCE

To ensure the quality, a German quality inspection takes place. Starting from the

purchase of the raw material to the shipment of the material, each sheet is subjected to a strict quality inspection. Each sheet is inspected by several inspectors until it is shipped and will not be shipped if there is the slightest defect.

## SHIPPING / UNBOXING

Our standard 122 x 61 cm format is sent to you stacked in a flat shipping box. Depending on the decor, up to 15 sheets fit in one package.

Large formats with 240 x 120 cm and 280 x 120 cm are shipped on a pallet or rolled. For this purpose, we heat the sheet over the entire surface and carefully roll it up. Up to 2 large formats fit in one carton.

Please always open all packaging carefully and make sure that you do not leave any scratches on the material. Check directly upon receipt of goods whether the corners of the pallet or carton are damaged and have this acknowledged by the carrier.

Rolled large formats must best be heated over a large area and should be laid out completely flat before processing! Do not unroll the material too quickly or when cold, as this may cause damage. No cracking noises should be heard during unrolling! The optimum temperature for unrolling is between 30 - 70C°.

Please note that small stone chips do not represent any damage to the material, but are rather a quality feature for the real natural stone surface: Despite small stone chips in the package, the Slate-Lite sheet is usually completely undamaged and the stone surface is intact over its entire surface!

Furthermore, slight superficial scratches on the material may occur, this is unfortunately unavoidable due to storage and transport. Such light scratches can be easily wiped away with a lint-free cloth and are also no damage to the material!

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A detailed FAQ video on shipping and unpacking the goods is available on our homepage and on YouTube.

All common modes of transportation are suitable: sea and air freight as well as courier shipments. Since Slate-Lite is very light, it can be shipped worldwide without any problems. For urgent shipments, it is even recommended to send by courier.

If you have any questions about shipping, please contact our sales department for the latest condition sheets.

## LIFE CYCLE ASSESSMENT

With Slate-Lite you are choosing an environmentally friendly stone decoration! The emission rates on the transport routes are many times lower with Slate-Lite than with conventional stone slabs, which leads to a significantly more positive eco-balance.

The majority of our goods are shipped by sea to our central warehouse. With a pollutant quantity of approx. 15.1 grams of  $CO_2$  emission per kilometer (source: NABU) the following example calculation of one of our containers results:

(Comparative calculation: sea route India/Germany. granite slab vs. Slate-Lite)

	Transportweg	Material (m <sup>2</sup> )	Ladung (kg)
Slate-Lite	Seecontainer 40	10.637 m²	26.500 kg
Granitsteinplatte (2 cm)	Seecontainer 40'	441 m²	26.500 kg
	Distance (km)	CO <sub>2</sub> emission (g)	CO <sub>2</sub> emission / m <sup>2</sup>
Slate-Lite	7.500 km	3.001.125,00	282,12 g
Granitsteinplatte (2 cm)	7.500 km	3.001.125,00	6.806,27 g

So one sheet of Slate-Lite produces about 95% less  $CO_2$  than a conventional thick stone slab during transport.

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Furthermore, the manufacturing process we have developed also conserves natural resources in the quarries: From the stone material of a single conventional stone slab of 2 cm, we obtain 200 -300 slabs of Slate-Lite, depending on the decor.

Of course, we are also relying more and more on recyclable solutions for our packaging, so that we have already been able to reduce the proportion of plastic waste many times over in recent years. And we will of course continue to work on this path in the future!

## SPECIAL FEATURES & FURTHER INFORMATION

Do you need more detailed information about a specific decor? A daily updated list of all available maximum and special sizes as well as detailed lists of application areas per decor and detailed information on adhesive and protective products are available from our sales department upon request.

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#### vCard

sales@slate-lite.com

## INFORMATION: MATERIAL TESTING AFTER RECEIPT

Slate-Lite is made from layered stone. Color differences in the individual slabs as well as quartz veins running through the stone, natural cracks or slight chipping may occur.

This is not a reason for complaint, but is a characteristic of the natural stone surface! Should you nevertheless discover a defect or excessive changes in color or structure in the goods sent, please inform us immediately within 14 days.

Goods that are processed despite obvious defects are excluded from recourse claims!

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## **APPENDIX: SLATE-LITE**



#### Slate-Lite Special Impregnator

Testsubstances:	Reaction time	Slate	Myca
Acetone	10 s		
Caustic Potash (10%)	2 min		
Ultrasol	10 min		
Edible vinegar (5%)	1 h		
Ammonia (25%)	16 h		
Water	16 h		
Butyl acetat	10 s	Attacks impregnation	
Mustard	5 h		
Ethanol (48%)	1 h		
Acetic acid (98%)	1 h	Attacks impregnation	
Pure acid cleaner	16 h		Discolorations
Alkaline cleaner 1:5	16 h	Discolorations	Discolorations
Skin protection cream	16 h	Discolorations	
Cola	6 h		
White spirit K30	16 h		



#### Slate-Lite Special Protection

Testsubstances:	Reaction time	Slate	Муса
Acetone	10 s		
Caustic Potash (10%)	2 min		
Ultrasol	10 min		
Edible vinegar (5%)	1 h		
Ammonia (25%)	16 h		
Water	16 h		
Butyl acetat	10 s		
Mustard	5 h		
Ethanol (48%)	1 h		
Acetic acid (98%)	1h	Leaves edges	
Pure acid cleaner	16 h		Discolorations
Alkaline cleaner 1:5	16 h		Discolorations
Skin protection cream	16 h	Discolorations	Discolorations
Cola	6 h		
White spirit K30	16 h		



	Slate-Lite 2K	-Protection Furnitu	re
Testsubstances:	Reaction time	Slate	Myca
Acetone	10 s		
Caustic Potash (10%)	2 min		
Ultrasol	10 min		
Edible vinegar (5%)	1 h		
Ammonia (25%)	16 h		
Water	16 h		
Butyl acetat	10 s		
Mustard	5 h		
Ethanol (48%)	1 h		
Acetic acid (98%)	1 h	Attacks sealer	Attacks sealer
Pure acid cleaner	16 h		
Alkaline cleaner 1:5	16 h		
Skin protection cream	16 h		
Cola	6 h		
White spirit K30	16 h		



## Slate-Lite Extreme Protection

Testsubstances:	Reaction time	Slate	Myca
Acetone	10 s		
Caustic Potash (10%)	2 min		
Ultrasol	10 min		
Edible vinegar (5%)	1 h		
Ammonia (25%)	16 h		
Water	16 h		
Butyl acetat	10 s		
Mustard	5 h		
Ethanol (48%)	1 h		
Acetic acid (98%)	1 h		
Pure acid cleaner	16 h		
Alkaline cleaner 1:5	16 h		
Skin protection cream	16 h		
Cola	6 h		
White spirit K30	16 h		