TECHNICAL DATA SHEET
SYSTEXX Pure Structure 109 RW (109)

Glass fibre wall coverings with either subtle or striking wall designs

Usage

The SYSTEXX Pure Structure 109 RW woven wall coverings are woven from glass yarns. SYSTEXX Pure wall coverings offer a large number of surface finishes due to a vast variety of designs and the possible combination with highly varied coating systems. They are ideal wall coverings for the interiors of commercial and private buildings. Individual designs can be created by using suitable creative techniques.

Properties

SYSTEXX Pure Structure 109 RW is classified flame-retardant according to DIN EN 13501-1:2010 and fulfill the requirements of class B-s1, d0. Thanks to its high quality, it meets Oeko-Tex Standard 100. Due to its very low VOC emissions, these wall coverings achieve class A+ "d'émissions dans l'air intérieur". Furthermore, it is permeable to water vapor, wall reinforcing and crack bridging, extremely abrasion and scrub resistant, impact and perforation resistant, resistant to disinfectants and cleaning agents (in combination with corresponding coating systems). It is non-toxic and suitable for allergy sufferers.
SYSTEXX Pure Structure 109 RW is applied using conventional wall adhesive.

Technical data / roll dimensions

Product	**SAP-Designation**	approx. **Weight** in g/m²	approx **Width** in cm	**Lenght** in m	**Pattern repeat**	**Adhesive-consumption** ml per m²**	
						min.	max.
SYSTEXX Pure Structure 109 RW	GG 109 RW	145	100	50	→|0 free match	150	250

** Non-binding recommendation. See also Application section 1.

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Substrate preparation

Substrates should be dry, clean, smooth and stable. Remove old wall coverings and unstable paints and finishes, sand down high-gloss paints to obtain a key and apply a suitable adhesion promoter. Sand down stable but rough/uneven substrates. Fill cracks/ holes with a levelling compound. The substrate must be prepared in such a way that the smallest unevenness are avoided, e.g. grains of sand, grain accumulations, etc. Processing marks may have a maximum width and height of 1 mm. If necessary, rework the surface over a large area with a smoothing plaster or in a smoothing step – Follow the plaster/filler manufacturer's instructions, especially with regard to primers. Unfilled, absorbent substrates are to be treated with a suitable primer. Remove any mold growth and treat in accordance with the relevant regulations.

More details are to be found in the table "Substrate / Preparation".

Application

1. Application with adhesive

Apply sufficient latex adhesive with a paint roller or airless spray gun evenly to the wall over a width of 1 – 2 sheets. Observe the adhesive manufacturer's application notes. This also applies for application with a wall papering device. At normal room temperature/climate (18 °C, 60 %) the drying time is 12 – 24 hours. When applicating under extreme climatic conditions (high humidity, high temperatures), the duration can change significantly.

For adhesive consumption, please see the table.
Consumption quantity depends on the fabric structure and substrate.

Note especially with fine textures like Structure 129/138/139/188: Please pay attention to a constant adhesive application pattern, apply adhesive of approximately 120 g/m² (± 15%). If necessary, dilute the adhesive with 10 – 20 % water. When using a pasting machine, measure with a 0.30 feeler gauge.

2. Avoiding textural differences

Never paste the wall covering upside down or inside out. Some products have a handy mark on the back of the wall covering which serves as a guide. These marks are spaced at approximately 1 m intervals from one length to the next. **With straight match**: We weave an alignment guide into wall coverings with large-format repeated patterns to make it easier to align them: a yellow thread which is visible on both sides of the covering. When applying each consecutive length, simply make sure that the yellow thread is perfectly aligned with the yellow thread in the previous length. This ensures that the design is shown off to its full effect.

3. Butt-joining

Make sure that the edges butt up smoothly where one length joins another. Overlaps in the seam area must be avoided. Any adhesive left on the front of the fabric should be removed immediately with a damp clean cloth or sponge.

Recommendation: The SYSTEXX sponge ensures optimal seam correction. It can also be used to effectively remove adhesive from the visible side.

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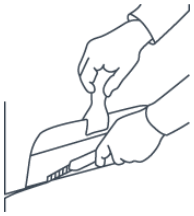
4. Pressing on and trimming



During application, use a (hard plastic) wallpaper spatula and press down firmly across the entire length, smoothing out any air bubbles. Carefully press overlapping fabric into the corners and cut sharp knife, using a wallpaper squeegee or cutting ruler as a guide, or just use wallpaper scissors.

Processing on outside corners: Gently sand the fabric with wet sand paper, (≥ P 240), then wrap it around the corner and cut or use a corner bead.

5. Coating

The use of a high-quality dispersion paint is recommended. All gloss levels can be used, but note that matt colors can affect the textural image.

Apply the paint evenly after the wall covering has completely dried. Follow the paint manufacturer's processing guidelines. The need for any additional coatings, which may only be applied after complete drying, depends on whether the product is pre-pigmented. Other influencing factors include, for example, the paint quality, the level of gloss, the color, the expected stress on the wall as well as the lighting situation and the desired result of the surface appearance. If fibers stand up after one coat, we recommend sanding them lightly between two coats. If resistance to disinfectants or decontamination of the surface is required, as well as for a satin or glossy coating, at least two coats are required. A test coating in advance is generally recommended.

The quantity depends on the paint and substrate as well as the level of gloss required and whether the surface is subject to heavy use. Determine exact values by means of a test application on the object. For further information, please refer to the technical data sheets of all products used.

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Important notes

1. Storage

Store the rolls in a dry, clean place, if possible wrapped in foil and closed, as well as frost-free and between 35 and 65% relative humidity.

2. Handling

Do not apply with room and surface temperatures below +8 °C. Always check to make sure that the serial numbers are the same when applying the wall covering to adjacent areas (see information on outside of box or roll inlay). One drop = wall/ceiling height plus 5 – 10 cm. Trim off the excess neatly.

3. General information

a) Despite strict quality controls, occasional production-related defects may occur. These are indicated at the edge of the product and compensated for by an additional length. Complaints made after more than 10 drops have been hung cannot be accepted.

b) The use of glass fibers can irritate the upper layers of the skin, which can lead to irritation in sensitive people. Allergy-causing or even questionable substances are not used.

c) Due to the manufacturing process of the weft, there are visually recognizable irregularities in the surface appearance of the fabrics. However, this deliberately created textile look is no reason for complaint.

d) Since wallcovered surfaces depict a craftsmanship, completely homogeneous surfaces without small irregularities cannot be achieved. A visual perception of the wallcovering sheets and seams is product-specific and unavoidable. Also, "invisible" seams are not feasible from all conceivable angles. The assessment after application has to be carried out under customary conditions, in particular in daylight and normal ceiling/room lighting perpendicular to the surface while maintaining a normal viewing distance and viewing angle. For the assessment, artificial lighting to make minor irregularities visible are just as inadmissible as the evaluation in grazing light conditions that only occur at certain times of the day or the use of aids such as magnifying glasses.

e) If light effects (e.g. grazing light) might influence the appearance of the finished surface, undesirable effects (e.g. changing shades on the surface) should be largely avoided. They cannot be completely ruled out, as light influences vary a lot and cannot be clearly detected and evaluated (e.g. in natural light). In principle, the lighting conditions, as they are intended for later use, must be known and should already be present at the time of the application. Before application, an assessment of possible undesirable effects should be made. In addition, the limits of craftsmanship on the construction site must be taken into account. Wallcovered surfaces which appear absolutely flat and shadow-free even under the influence of grazing light are not executable.

f) This information sheet replaces all previously issued ones. It does not claim to address every problem that may occur in practice. Therefore no obligation or liability may be derived from it. Users are obliged to use their professional judgment to assess the application based on the product's suitability and the substrate. Please comply with the relevant national building regulations. In case of doubt, please contact the technical advisory service at Vitrulan Textile Glass GmbH.

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General overview of substrate preparation

Substrate	Preparation
Exposed concrete	1. De-burr roughly 2. Fill holes and cracks sufficiently 3. Sand and prime according to filler/plaster manufacturer's instructions
Poured concrete, filigree concrete	1. Clean (abrade and smooth down) 2. Fill holes and cracks, smooth and level with a suitable filling material 3. Cover and smooth the entire surface 4. Sand and prime according to filler/plaster manufacturer's instructions
Sanding plaster	1. Sand down (remove loose sand) 2. Stabilize substrate with a suitable primer 3. Fill holes and cracks, smooth and level with a suitable filling material 4. Sand and prime according to filler/plaster manufacturer's instructions
Course textured plaster	1. De-burr roughly 2. Fill holes and cracks, smooth and level with a suitable filling material 3. Sand and prime according to filler/plaster manufacturer's instructions
Very absorbent plaster (e.g. gypsum plaster)	1. If necessary, skim the entire surface and smooth off 2. Sand and prime according to filler/plaster manufacturer's instructions
Standard plaster	1. Fill holes and cracks, smooth and level with a suitable filling material 2. Sand and prime according to filler/plaster manufacturer's instructions
Lining paper, size or sealer	1. Dampen the lining paper, size, or sealer to loosen it 2. Scrape it off 3. If necessary, skim the entire surface and smooth off 4. Sand and prime according to filler/plaster manufacturer's instructions
Peelable / stripable wallpaper **Scrap wallpaper** (e.g. cellulose)	1. Remove wallpaper entirely 2. Fill holes and cracks, smooth and level with a suitable filling material 3. Sand and prime according to filler/plaster manufacturer's instructions
Peeling / Flaking paint coating	1. Remove all loose flakes 2. If necessary, prime the surface 3. Fill holes and cracks, smooth and level with a suitable filling material 4. Sand and prime according to filler/plaster manufacturer's instructions
Distemper coatings	1. Remove completely by scraping/washing off 2. Prime with suitable keying primer
Glossy paint coatings	1. Sand until there is a mat finish 2. If necessary, apply a keying primer
Glass fabric*	1. Clean (abrade and smooth down) 2. Smoothen and level out fabric structure with a suitable filling material (prevents the formation of stripes in the texture) 3. Sand and prime according to filler/plaster manufacturer's instructions

* otherwise, an unclean structural image is created which becomes extremely disturbing after coating

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Plasterboard panels	1. Fill joints and screw holes until even surface in accordance with current plasterboard specifications 2. Sand and prime according to filler/plaster manufacturer's instructions
OSB panels, wood, Hardboard	1. Apply a protective layer (to prevent carry-over of constituents) 2. Sand 3. Fill joints and screw holes with suitable filling material 4. Fill and level whole surface with a suitable filling material 5. Sand and prime according to filler/plaster manufacturer's instructions
Ceramic tiles	1. Clean and degrease the tiles 2. Apply bonding agent (undercoat/primer for ceramic and glass) 3. Fill and level whole surface with a suitable filling material 4. Sand and prime according to filler/plaster manufacturer's instructions
Rusty steel surfaces	1. Remove rust as per DIN 55928 PST 2-3 or ST 2-3 2. Apply a suitable anti-corrosive primer 3. Fill joints with suitable (2-K) filling material 4. Sand and prime (rust protection)
Bleeding surfaces (e.g. waterstains)	1. Insulate bleeding areas with a suitable primer 2. Sand 2. Fill holes and cracks, smooth and level with a suitable filling material 3. Sand and prime according to filler/plaster manufacturer's instructions
Nicotine and soot deposits	Treat with an insulating protective layer

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