

Rieder

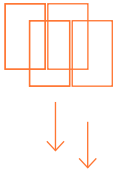
pixel

Transformation from
waste to design

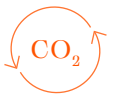
A new product was developed to reduce waste in production: pixel. They are small-format concrete shingles produced from the residual material generated, for example, by cutting large-size panels. A software will take account of the amount of waste (scrapcrete) and generate project-specific design options for facades. It thus not only generates minimal waste cycles, but also develops a new design language that is fundamentally based on existing resources. „Creating from what you have“ is the guiding principle of this inverted design process. It is not just about recycling residual materials, it is also about creating aesthetically appealing designs.



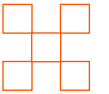
CONCRETE SHINGLES
147 X 240 MM



ZERO WASTE
INITIATIVE



CREATING FROM
WHAT YOU HAVE



In different colours and surfaces, pixels enable a lively and at the same time homogeneous appearance on the facade.

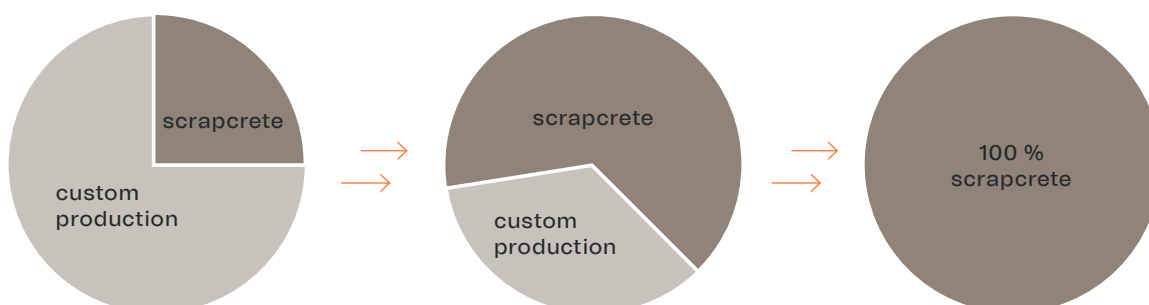
Characteristics

MATERIAL	Material	fibreC glassfibre reinforced concrete, Matrix 2.2
	CO ₂ footprint	GWP fossil: 20,0 kg CO ₂ / m ²
	Production method	extrusion
	Reinforcement	glassfibre textile fabric approved by the building authorities
	Health standard	free of crystalline silica (< 1 M.-%)
	Classification fire behaviour	A1 – non-combustible, A2-s1, d0 – non-combustible (EN 13501-1)
PRODUCT	Size	147 x 240 mm (coverage due to lap siding 147 x 200 mm)
	Thickness	13 mm
	Weight per pixel	ca. 1 kg
	Colours	availability scrapcrete -> online configurator; custom production all colours available
	Surfaces	ferro, ferro light, matt
	Textures	standard (others on request)
	Fastening	concealed, screw is covered by shingle (lap siding)
	DELIVERY	Palletising
Pallet scope		25,5 m ² resp. 720 pieces -> 20,8 m ² coverage due to lap siding Euro pallet (800 x 1200 mm): 30 layers á 24 pieces
Minimum purchase		1 pallet per colour and surface

Ecological indicators

Key figure	Unit	Cradle to Gate A1-A3
GWP Global warming	kg CO ₂	20,0
PENRT non renewable energy	MJ/m ²	173,0
Climate Change	kg CO ₂	24,9

The proportion of scrapcrete and individually made pixels can vary depending on the customer's wishes. The implementation of a project using 100% residual materials enables maximum resource conservation. The lower the proportion of shingles produced to order, the better the impact on the ecological life cycle assessment. The online configurator offers an up-to-date overview of the availability of pixels made from residues.



Installation

pixels are installed in a similar way to a shingle facade made of wood. Each shingle is individually inserted into a clamping rail and fastened with screws or rivets. The overlapping shingles conceal the screw.

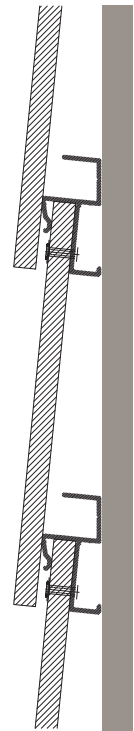
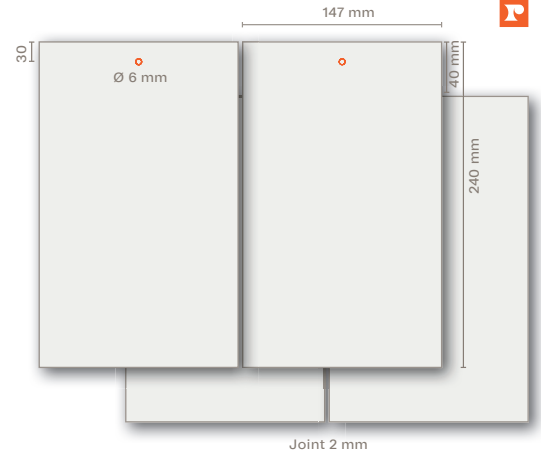
Other mounting options are available on request.

Due to the shingles overlapping, 20% more sqm of pixel is required for a facade area (e.g. facade area of 100 sqm -> 120 sqm pixel).

Everything from a single source

The mounting system with clamping rails that Rieder developed enables simple and quick installation. The delivery content includes the secondary supporting structure (profiles, clamping rails) made from aluminium, screws and pixels. On request, the pixels come pre-drilled, which makes them quicker to install at the construction site.

Clamping rail	Aluminium
Overlapping pixel	40 mm
Joint	2 mm
Drill hole	Ø 6 mm
Drilling distance	30 mm
Screw	29 mm (Beta)
Substructure	Grid dimension 200 mm



Colour schemes

By combining different colours and surfaces of a colour collection, pixels give the facade a vibrant yet homogeneous appearance. Because the shingles are small, the surface appears calm and uniform to the eye, despite the variety of colours.



1 colour in 3 surfaces



2 colours in 3 surfaces



3 colours in 3 surfaces