## Ceramic staircases

Attractive design of steps and stairs using ceramic tiles

## A tribute to the staircase

Essentially, stairs open up different areas of a building. From an aesthetic point of view, however, stairs are a gift for designers. They often have a truly sculptural character, which is skilfully accentuated by the right choice of tile covering. For example, with a 145-centimetre-wide stair tile, as offered by AGROB BUCHTAL in many collections.

Thanks to this large format, the steps can be completely covered using a single tile without intermediate joints. This is a real gain, both aesthetically and in terms of workmanship.

For the leading international supplier of architectural ceramics, modular tile series with a wide range of colors, formats and slip-resistant surfaces are part of its brand identity. In addition to flat products for walls and floors, the focus is on functional products with solutions for architecturally and technically demanding spatial ideas and conditions. Thanks to the variety of designs in the collections, different style worlds can be harmoniously realised.


Factory series


Physical building requirements
Frost-resistant
Impact-resistant

## Design requirements

Variety of colors and shapes

Technical requirements
Substrate (gradient in outdoor areas) Detailed solutions
Slip-resistant

Environmental requirements
Sustainable building material
Resistant to environmental influences Increases the value of the property Low-maintenance thanks to Hytect coating

## Regulations / Standards

Steps


## Gradient ratio (s/a)

The dimensions of the treads and risers depend on the length of stride. For adults, this is between 59 and 65 cm . Ideally, all stairs in the building should have the same rise ratio. However, this should always be the case within individual flights of stairs.

Step dimension formula: $62 \mathrm{~cm} \leq 2 \mathrm{~s}+\mathrm{a} \leq 65 \mathrm{~cm}$
Safety formula: $45 \mathrm{~cm} \leq a+s \leq 47 \mathrm{~cm}$
Comfort formula: a-s $\approx 12 \mathrm{~cm}$

## Step designs

1. Closed risers with an undercut $\leq 3 \mathrm{~cm}$ are among the safest types of steps.
2. Vertically closed steps with short treads can be dangerous when walking downstairs if the tread area is too small. When walking upstairs, they harbour the risk of tripping by getting stuck.
3. For open risers: undercut $\geq 3 \mathrm{~cm}$ and openings $<\varnothing 12 \mathrm{~cm}$

## Stair treads

The following designs have proven to be effective in preventing tripping or injuries when falling on stairs:

1. Bevelled/chamfered leading edge $\leq 10 \mathrm{~mm}$
2. Rounded leading edge; $2 \mathrm{~mm} \leq r \leq 5 \mathrm{~mm}$


## Visibility of tread edges / leading edges

Highlighting the leading edges of steps using additional systems can help to prevent tripping or slipping on the edge as a safety measure. In addition, leading edges $\mathbf{1}$ and $\mathbf{2}$ should contrast with the rest of the floor covering 3.

Make visible through:

- Color and light/dark contrasts
- Change of material


## Non-slip and Hytect

Slip-resistance classes R10 and R11 as well as variants with grooves ensure a safe tread even in wet conditions. The Hytect surface finish reduces cleaning effort to a minimum, degrades air pollutants and odours, and has an antibacterial effect without chemical substances - an important criterion when stairs are not only walked on, but also used for lingering on or learning, for example in schools.

## Standards (D)

The individual stair elements must be easily recognisable for visually-impaired people.
This is achieved, for example, by step markings:

- 4 cm to 5 cm wide on treads
- min. 1 cm , better 2 cm , on risers

A tactile guide tile should be positioned at the beginning and end.




Beautiful and functional staircase design with just one tile

AGROB BUCHTAL stair tiles in a width of 145 cm cover a stair without joint and are easy to install. This makes the staircase appear more spacious and elegant.



## Formats

## Stair tiles


$30 \times 30 \mathrm{~cm}$ (with grooving)

$30 \times 60 \mathrm{~cm}$ (with grooving)
$\square$
$30 \times 120 \mathrm{~cm}$ (with grooving)

$60 \times 120 \mathrm{~cm}$ (with grooving)

$31 \times 145 \mathrm{~cm}$ (with bevel)

$31 \times 145 \mathrm{~cm}$ (with bevel and grooving)

## Step riser


$28 \times 145 \mathrm{~cm}$

## Stair edges


$7.2 \times 120 \mathrm{~cm}$

$7.2 \times 145 \mathrm{~cm}$ (with bevel)

## Internal angle

External angle


## Skirtings


$10 \times 20 \mathrm{~cm}$, skirting with bevel (Emotion Grip)

$6 \times 50 \mathrm{~cm}$ (cut)

$7 \times 20 \mathrm{~cm}$ (rounded, cut)

$7 \times 30 \mathrm{~cm}$ (rounded, cut)

$6 \times 60 \mathrm{~cm}$ (cut)

$7 \times 60 \mathrm{~cm}$ (rounded, cut)

## Cove skirtings, decorative


$10 \times 10 \mathrm{~cm}$
$10 \times 50 \mathrm{~cm}$

$10 \times 15 \mathrm{~cm}$


$10 \times 20 \mathrm{~cm}$

$10 \times 60 \mathrm{~cm}$

$10 \times 25 \mathrm{~cm}$

$10 \times 30 \mathrm{~cm}$

$15 \times 60 \mathrm{~cm}$

## Formats

## Stair system with natural ceramic



Stair tile,
$25 \times 30 \mathrm{~cm}$


Corner left, $25 \times 30 \mathrm{~cm}$


Corner right,
$25 \times 30 \mathrm{~cm}$

Florentine step system


Step tile, $25 \times 35 \mathrm{~cm}$


Corner piece left/right, $35 \times 35 \mathrm{~cm}$


Skirting (left)


Skirting (right)

## Florentine Piccolo


$12.5 \times 25 \mathrm{~cm}$

Skirtings

$8.3 \times 25 \mathrm{~cm}$ (rounded)

$8.3 \times 30 \mathrm{~cm}$ (rounded)

## Nosing tiles


$12.5 \times 25 \mathrm{~cm}$

$12.5 \times 30 \mathrm{~cm}$

## Area Pro shaped pieces as patio tiles


$60 \times 60 \mathrm{~cm}$ (rounded on one side)

$30 \times 60 \mathrm{~cm}$ (with nosing)
$30 \times 60 \mathrm{~cm}$ (with rounded edge on one side and grooves as corner solution 2-pieces)

$60 \times 60 \mathrm{~cm}$ (rounded on one side and grooved)

$60 \times 60 \mathrm{~cm}$ (with nosing as corner solution)


Matrix

Area Pro



Natural ceramic matrix
Formats in cm

gold-ochre

gold-cream

gold-grey

gold-black

autumn leaves

natural red

portofino

brown range

brick-red

tobacco


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