



## *Sandstone types*



Sächsische  
SANDSTEINWERKE



## COTTA SANDSTONE



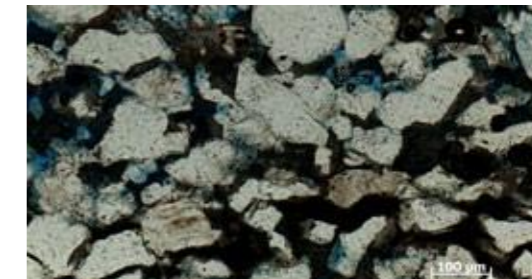
### Petrographic properties

Trade name .....	COTTAER SANDSTEIN
Petrographic family .....	Sedimentary rock
Petrographic name .....	Sandstone / Elbsandstone / quartz arenite
Geological age .....	Cretaceous / Lower Turonian / Labiate sandstone
Origin .....	Germany / Saxony / Cotta
Bulk density (according to DIN EN 1936) .....	Average value 2,040 kg/m <sup>3</sup>
Compressive strength (according to DIN EN 1926) .....	Average value 55 Mpa (perpendicular to the anisotropy plane)
Bending tensile strength (according to DIN EN 12372) .....	Average value 5.8 Mpa (perpendicular to the anisotropy plane)
Water absorption (according to DIN EN 13755) .....	Average value 6.8 % (under atmospheric pressure)
Anchor break-out (according to DIN EN 13364) .....	Average value > 1,400 N (type IIa, d = 50 mm)
Open porosity (according to DIN EN 1936) .....	Average value 22.6 %
Frost resistance (according to DIN EN 12371) .....	yes, scale "0" (average mass loss 0.01 %, after 56 freeze/thaw cycles)

-gwg-                      -gw-                      -g-                      -BH/gw-

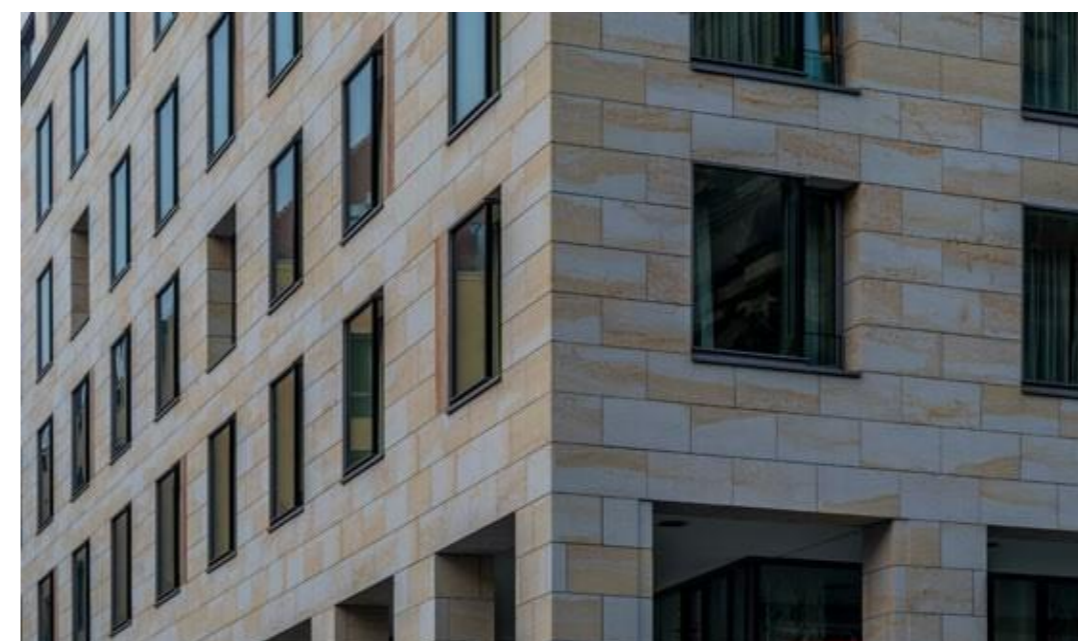
The fine-grained COTTAER SANDSTONE mainly has grain sizes of 0.05 to 0.25 mm, with individual grains up to 0.5 mm. The main component is 95 % quartz, with some feldspar, clay and accessory rutile, zircon, tourmaline, glauconite and opaque minerals. The grain roundness is slightly rounded to rounded; the sorting is poor. The grain

Bonding takes place via direct grain contact (homogeneous siliceous binder), in the area of the carbonaceous-clayey streaks also via clayey binders. The pore space consists of a broadly distributed content of capillary pores (predominantly < 0.1 mm) and a small proportion of macropores (max. 0.3 mm).



Microscopic images of the rock structure

COTTAER SANDSTEIN-gwg-  
Wöhrl department stores',  
Prager Straße Dresden



COTTAER SANDSTEIN -gwg-,  
nh-Hotel,  
Dresden



COTTAER SANDSTEIN -gwg- (grey/white/yellow, without colour selection)

COTTAER SANDSTEIN -gwg- is an extremely fine-grained and layer-bound light grey/white to yellow Elbe sandstone, without colour selection. The colour changes can be layer-conform, but also cloudy/knotty, very lively and irregular. Wavy "clay and coal skins" embedded in the stratification give it its typical marbled structure. Occasional fossilised burial traces can occur in some beds.

COTTAER SANDSTEIN is frost and weather resistant and is used both indoors and outdoors. It is particularly suitable for façade slabs including column and pillar cladding, window and door surrounds, ashlar and pillar stones, cover slabs and profiled stonemasonry work of all kinds in restoration and new construction.



COTTAER SANDSTEIN -gw- (grey/white)

COTTAER SANDSTEIN -gw- is an extremely fine-grained, colour-selected grey/white Elbe sandstone from the "Neundorf" quarry with occasional yellow-brown colouring and pale yellow clouding. The wavy clay skins embedded in the stratification give it its typical marbled structure.

COTTAER SANDSTEIN is frost and weather resistant and is used both indoors and outdoors. It is particularly suitable for façade slabs including column and pillar cladding, window and door frames, ashlar and pillar stones, cover slabs and profiled stonemasonry work of all kinds in restoration and new construction.

## COTTAER SANDSTEIN -g- (yellow)

COTTAER SANDSTEIN -g- is an extremely fine-grained, colour-selected, yellowish banded Elbe sandstone with striking, partly reddish colourations. The wavy clay skins embedded in the stratification give it its typical marbled structure.

COTTAER SANDSTEIN is frost and weather resistant and is used both indoors and outdoors. It is particularly suitable for façade slabs including column and pillar cladding, window and door surrounds, ashlar and pillar stones, cover slabs and profiled stonemasonry work of all kinds in restoration and new construction.



COTTAER SANDSTEIN -Bh/gw- (sculpting material grey/white)

COTTAER SANDSTEIN -Bh/gw- is an extremely fine-grained, specially selected Elbe sandstone in a grey/white colour. It is dense, as far as possible without flaws or inclusions and pure in colour. If required, however, banded or cloudy material structures can also be supplied. Here too, the wavy clay skins embedded in the stratification give the material its typical marbled structure.

COTTAER SANDSTEIN -Bh/gw- is frost and weather resistant and is used in particular for demanding and high-quality stonemasonry and sculpture work due to its good workability, marbled structure, density and purity.



COTTAER SANDSTEIN -Bh/g- (sculpting material yellow)

COTTAER SANDSTEIN -Bh/g- is an extremely fine-grained, specially selected Elbe sandstone in yellow colour. It is dense, as free as possible from flaws or inclusions and pure in colour. If required, however, banded or cloudy material structures can also be supplied. Here too, the wavy clay skins embedded in the layer give the material its typical marbled structure.

COTTAER SANDSTEIN -Bh/g- is frost and weather resistant and is used in particular for demanding and high-quality stonemasonry and sculpture work due to its good workability, marbled structure, density and purity.

# REINHARDTSDORF SANDSTONE



-gwg-

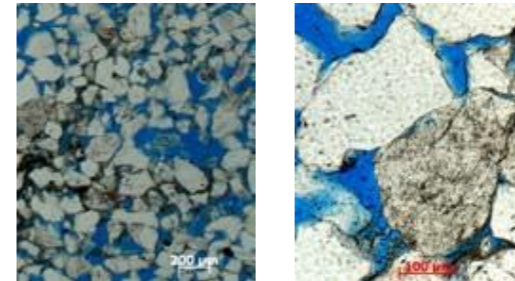
-Bh-

## Petrographic properties

- Trade name.....REINHARDTSDORFER SANDSTONE
- Petrographic family.....Sedimentary rock
- Petrographic name .....Sandstone / Elbsandstone / quartz arenite
- Geological age .....Cretaceous / Middle Turonian / Labiate Sandstone
- Origin.....Germany / Saxony / Reinhardtendorf
- Bulk density (according to DIN EN 1936).....Average value 2,060 kg/m<sup>3</sup>
- Compressive strength (according to DIN EN 1926).....Average value 61 Mpa (perpendicular to the anisotropy plane)
- Bending tensile strength (according to DIN EN 12372).....Average value 4.5 Mpa (perpendicular to the anisotropy plane)
- Water absorption (according to DIN EN 13755).....Average value 7.3 % (under atmospheric pressure)
- Anchor break-out (according to DIN EN 13364).....Average value > 1,450 N (type IIa, d = 50 mm)
- Open porosity (according to DIN EN 1936).....Average value 22 %
- Frost resistance (according to DIN EN 12371).....yes, scale "0" (average mass loss 0.02 %, after 56 freeze-thaw cycles)



REINHARDTSDORFER SANDSTEIN, private villa, Frankfurt am Main



Microscopic images of the rock structure

The fine- to medium-grained REINHARDTSDORFER SANDSTEIN mainly has grain sizes of 0.1 to 0.6 mm, rarely up to 1.3 mm. The main component is 95 % quartz, with a few feldspars and heavy minerals. The grain roundness is rounded to slightly angular; the sorting is moderate to poor. Grain bonding is mainly achieved via direct grain contact (homogeneous siliceous binder; flat or slightly convex-concave). The pore space is mostly open, rarely clayey or limonitic substances are embedded.

REINHARDTSDORF SANDSTONE,  
Eosander Portal, Berlin Palace





REINHARDTSDORFER SANDSTEIN -gwg- (grey/white/yellow, without colour selection)

REINHARDTSDORFER SANDSTEIN -gwg- is a Fine-grained grey/white to yellow, pebble-bound Elbe sandstone, with no choice of colour. The colour changes can be stratified or also cloudy and irregular. Numerous fossil relics and burial traces are characteristic of this material and give it an unmistakable charisma.

REINHARDTSDORFER SANDSTEIN is frost- and weather-resistant and is mainly used outdoors, but is also attractive for indoor use. It is particularly suitable for solid and profiled stone masonry work of all kinds in restoration and new construction. Exemplary references include the newly rebuilt palaces in Braunschweig, Potsdam and Berlin (Humboldt Forum).

## REINHARDTSDORFER SANDSTEIN -Bh- (sculpture material, selected quality)

### REINHARDTSDORFER SANDSTEIN -Bh-

The material is selected for its colour and structure, with a predominantly yellowish base colour. The fine grain and pebbly bond as well as the good workability offer excellent conditions for the realisation of the most challenging stonemasonry and above all sculptural work.

REINHARDTSDORFER SANDSTEIN -Bh- is frost-resistant and is primarily used for copies of sculptures and ornaments, but also in fountain construction. For example, the figurative works on the palace and park in Sanssouci, the Dresden Zwinger and the Berlin Palace (Humboldt Forum) are among the outstanding references in REINHARDTSDORFER SANDSTEIN.

## POSTA SANDSTONE



-mE-

-mgE-

-Bh-

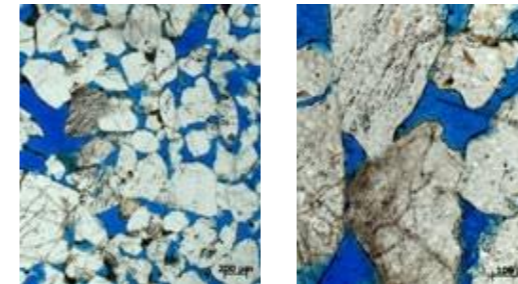
POSTA SANDSTONE,  
Church of Our Lady,  
Dresden



## Petrographic properties

Trade name..... POSTAER SANDSTEIN  
 Petrographic family..... Sedimentary rock  
 Petrographic name ..... Sandstone / Elbsandstone / quartz arenite  
 Geological age ..... Cretaceous / Lower Turonian / Labiate sandstone  
 Origin ..... Germany / Saxony / Lohmen or Wehlen

Bulk density (according to DIN EN 1936)..... Average value 2,100 kg/m<sup>3</sup>  
 Compressive strength (according to DIN EN 1926)..... Average value 62 Mpa (perpendicular to the anisotropy plane)  
 Bending tensile strength (according to DIN EN 12372)..... Average value 5.9 Mpa (perpendicular to the anisotropy plane)  
 Water absorption (according to DIN EN 13755)..... Average value 5.9 % (under atmospheric pressure)  
 Anchor break-out (according to DIN EN 13364)..... Average value > 1,900 N (type IIa, d = 50 mm)  
 .....mean value > 1,200 N (type IIa, d = 40 mm)  
 Open porosity (according to DIN EN 1936)..... Average value 20.6 %  
 Frost resistance (according to DIN EN 12371)..... yes, scale "0" (average mass loss 0.01 %, after 56 freeze-thaw cycles)



Microscopic images of the rock structure

The medium to coarse-grained POSTAER SANDSTONE has predominantly grain sizes of 0.2 to 0.7 mm, individually up to 4.5 mm. The main component is 98 % quartz (equal parts polycrystalline, homogeneous or undissolving). The grain rounding is weak to clearly rounded; the sorting is poor. Grain bonding is mainly achieved by direct grain contact. There is strong intergrowth of the grains with each other up to pebbly wax seams. The pore space shows a high proportion of macro- and capillary pores (0.3 to 0.5 mm; max. 1.8 mm).



POSTA SANDSTONE,  
Albert Bridge, Dresden



POSTAER SANDSTONE -mE- (with inclusions)

POSTAER SANDSTEIN -mE- is a medium to coarse-grained, pebble-bound Elbe sandstone of yellow-brown, also grey colour with typical dark brown iron hydroxide concretions or light grey cavernous inclusions. These occur sporadically, but also in nests. Very often it shows a banded or cloudy structure between grey, yellow and brown layers.

POSTAER SANDSTONE is absolutely frost and weather resistant and, due to its special hardness and environmental resistance, is used in particular for architectural elements subject to high loads and splash water as well as in landscaping. It is particularly suitable for step and floor coverings in outdoor areas, in plinth masonry, as bank and embankment stone and as hydraulic engineering, wall or paving stone.



POSTAER SANDSTONE -mgE- (with minor inclusions)

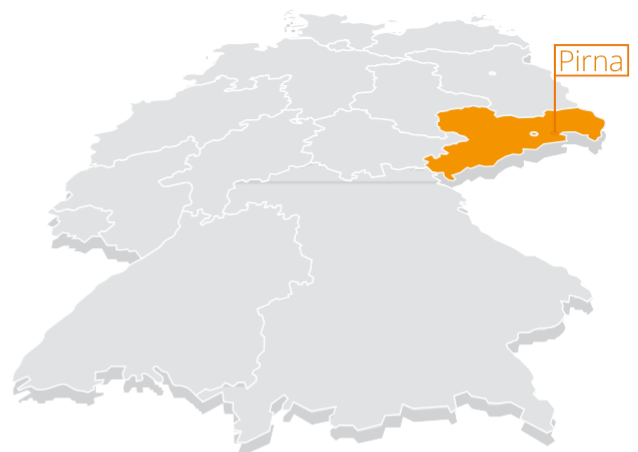
POSTAER SANDSTEIN -mgE- is a medium-grained, pebble-bound Elbe sandstone of yellow-brown, also grey colour. It is very often banded between yellow and/or grey and brown layers. Isolated dark brown iron hydroxide or light grey cavernous inclusions are characteristic.

POSTAER SANDSTONE is absolutely frost and weather resistant and, due to its special hardness and environmental resistance, is used in particular for architectural elements that are exposed to high loads and splash water, such as columns, steps, floor and plinth slabs. It is particularly suitable for solid and profiled stonemasonry work of any kind in restoration and new construction. POSTAER SANDSTEIN is the main building material for the archaeological reconstruction of the Dresden Frauenkirche.

POSTAER SANDSTEIN -Bh- (sculpture material, selected quality)

POSTAER SANDSTEIN -Bh- is a medium-grained, pebble-bound Elbe sandstone of selected grey to yellowish/brown colour and structure. It is as free as possible from inclusions.

POSTAER SANDSTONE is absolutely frost and weather resistant and, due to its special hardness and environmental resistance, is used in particular for demanding, highly stressed and splash-proof architectural elements. Thanks to its special and flawless appearance, it is primarily used in exclusive villa construction, both indoors and outdoors. For example, load-bearing columns, floor slabs, profiled steps and balustrades in the foyers of castles, villas and manor houses are among the favoured areas of application for this material.



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