

Industrial floors
Commerical ceramics

POWER PERFORMANCE

HYGIENIC

ANTI SLIP

HEAVY DUTY



ströher[®]
Clinker. Ceramics. Competence.

ATTENTION

In commercial, industrial and public areas, floors have to comply with a formidable range of safety requirements stipulated by law in most countries.

For reasons of occupational safety and consumer protection, it is essential to observe the catalogue of requirements for flooring material in regard to slip resistance, load capacity and hygiene standards in particular.

If you have any application technology questions, please contact us.



**MADE IN
DILLENBURG**

All that we do is shaped by our values and philosophy: consistency, predictability and application confidence – we call it ‘traction: keeping both feet on the ground’ in a wide and narrow sense.

Our products deliver a clear statement about who we are. The list of the companies who rely on us in realizing their projects does so as well:

TCHIBO

GEROLSTEINER

STELLA ARTOIS

SUN INBEV

HEINEKEN

DANONE

PEPSI

MCDONALDS

ANHEUSER-BUSCH INBEV

ASSURANCE

PORSCHE

BMW

VOLKSWAGEN

MAN

THYSSEN KRUPP

DACHSER

ALNATURA

EDEKA



CERAMIC ENGINEERING



**MADE IN
DILLENBURG**

129 years of production experience have resulted in a pool of mature knowledge and confidence in dealing with clay. Our ceramic material is not an interchangeable, off-the-peg product – because of our quality standards Dillenburg is not an interchangeable production facility.

Our ceramics have a high load capacity and are highly resistant for two reasons: We have developed a particularly resistant hard glaze based on highly refined mineral-oxidic raw materials that function as a protective shield.

High temperature firing results in a reaction layer that yields excellent interlocking and a strong bond with the body. This is how we can create an ultra abrasion-resistant surface quality that is easy to care for – permanently.



TWO FOR ALL

SECUTON® STALOTEC®

HYGIENIC



canteen kitchens
breweries
supermarkets
slaughterhouses
food industry
chemical industry
milk processors
food retailing
meat industry
bakeries
beverage industry
pharmaceutical industry
food processing

ANTI

supermarkets
food retailing
fire stations
canteen kitchens
working areas
shower rooms
food processing
beverage industry
car washes
commercial buildings
rescue stations
serving areas



Bio compatibility

When it comes to production, and applications as well. Everyone is talking about it – we have it under seal.

The seamless poured surfaces that are popular in the project and production areas in particular are ecologically objectionable in regard to a range of aspects, our ceramic material is EPD-certified as per the European sustainability principle of the German Federal Building Ministry.

CASES

HEAVY DUTY

SLIP



packaging halls

bottling halls

fire stations

production areas

loading areas

food processing

automotive service

milk processors

printing companies

breweries

rescue stations

meat industry



Thermal shock resistance

When it comes to expansion resistance, and thermal shock resistance as well. We have both.

Our ceramics feature an optimal coefficient of thermal expansion and never get bent out of shape – even when installed. Because what we fire in our kiln is resistant to almost everything, particularly to thermal loads.

SPECIFICATION

What we eat and drink has a direct influence on our health. This is why particularly rigorous hygiene rules apply to the places where food is produced, processed and prepared. The requirements vary in detail according to sector and company, but whether in places that prepare food for millions of people or in hospitals, swimming facilities and sanitary facilities, the most minor hygiene error can have unpredictable, extremely expensive consequences.

With its ceramic for industrial areas and projects, STRÖHER provides flooring material that is extremely easy to care for and which you can trust. In particular, special moulded and easy-clean parts such as cove bases and skirtings guarantee perfect hygienic transitions from the floor to the walls.

HYGIENE





Hygiene starts on the floor because the floor is the part of the room that is rarely clean and is never clinically pure. A floor that is easy to care for quickly pays for itself – also when it comes to maintenance costs that can add up to a lot when the floor covers a large area.

SPECIFICATION

When it comes to slip resistance, the legal stipulations for preventing accidents have to be taken very seriously because we usually underestimate the frequency and severity of falls. For insurance-related reasons as well, we should respect their precise guidelines for the public, commercial and industrial areas. And keep in mind that spilled liquids and moisture are not the only causes of slipping hazards. Oil dripping onto the floor, waste grease and undetected frost damage can also quickly become dangers.

Thanks to its special hard glaze 2.0, STRÖHER offers with Secuton® a slip resistance concept that grips and a ceramic that remains abrasion-resistant and aesthetic even when it is extremely utilized. Attention: The wrong care agent can affect the anti-slip feature.

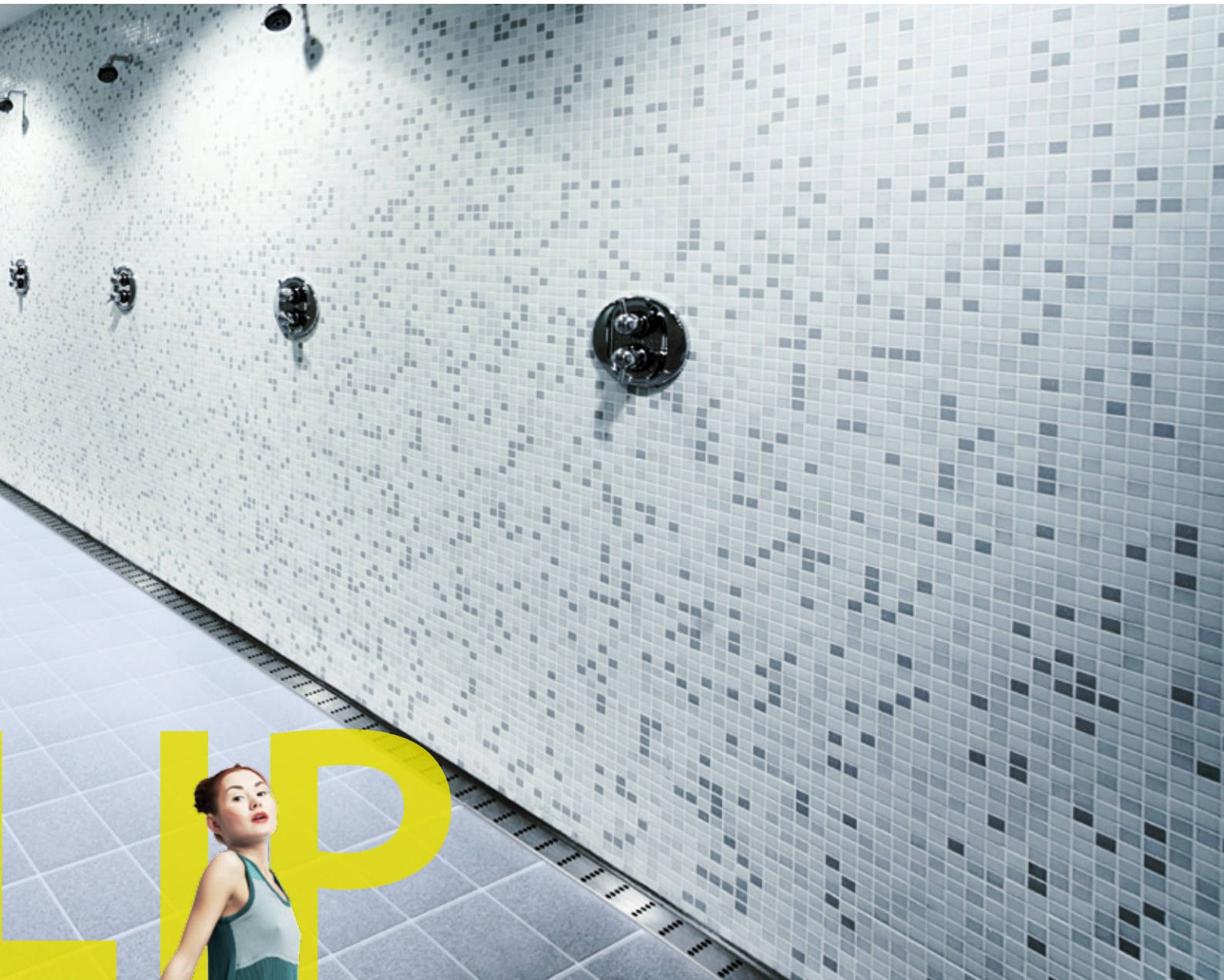
ANTI SLIP



Secuton® covers all slip-resistance classes and anti-slip profiles and remains extremely easy to care for and clean – even at the highest slip-resistance level – thanks to special hard glaze 2.0. For slip-resistance at the highest level of hygiene.

SECUTON®

STALOTEC®



STEP-ON SAFETY. ANTI-SLIP PROPERTIES.

Floor coverings in barefoot areas subject to wet conditions (NB)



e.g. barefoot areas
(mostly dry),
changing rooms



plain surface
(R 10/A)



e.g. showers, pool surround
and pool floor in non-swimmer
area, paddling pools,
steps outside pools



grained surface
(R 11/B)



e.g. in underwater steps,
walk-through connecting pools,
sloping pool edges

Anti-slip surfaces

SECUTON®

STALOTEC®

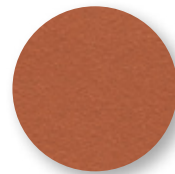
Anti-slip floor coverings for workplaces and working areas



Anti-slip surface,
e.g. for staircases, medical practices,
hospital wards, restaurants and
canteens, entrance areas



starpoint studded surface
(R 12-V4/B)



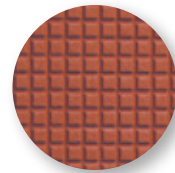
plain surface
(R 11/B)



Anti-slip floor coverings
e.g. for washrooms, staff coffee
and tea rooms



round studded surface
(R 13-V10/B)



wafer profile surface
(R 12-V8/C)



Anti-slip floor coverings
e.g. for vehicle repair workshops,
laboratories, beverage filling plant



Anti-slip floor coverings
e.g. for cold storage rooms,
fire stations, waste water
treatment plant



Anti-slip floor coverings
e.g. for abattoirs (V10),
vegetable preparation areas (V6)

FLOORS IN WORKROOMS. WORKING AREAS WITH HIGH SLIPPING HAZARDS.

No.	Workrooms and Working areas	R- ⁽¹⁾ Value	V- ⁽¹⁾ Value	No.	Workrooms and Working areas	R- ⁽¹⁾ Value	V- ⁽¹⁾ Value	No.	Workrooms and Working areas	R- ⁽¹⁾ Value	V- ⁽¹⁾ Value
General Workrooms and Working areas											
0.1	Entrances, foyers	R 9		9.8.2	Washing-up rooms for 9.2	R 11		18.2	polishing	R 11	
0.2	Staircases	R 9		9.8.3	Washing-up rooms for 9.3	R 12		18.2.1	Glass shaping		
0.3	Sanitary areas (e.g. toilets, changing cubicles and washrooms)	R 10		9.9	Dining-rooms, visitor service areas, canteens	R 9		18.3	Hollowware, glass containers, structural glass	R 11	V 4
	off-duty areas (e.g. waiting rooms, works canteens)	R 9			incl. service access and serving counters			18.3.1	Grinding and polishing areas	R 11	
	Sanitary areas (e.g. medical treatment areas)	R 9		10	Cold stores, deep freeze chambers, cold store buildings, deep freeze buildings			18.4	Hollow glasware, sheet glass		
				10.1	for non-packed goods	R 12			Insulating glass manufacture		
				10.2	for packed goods	R 11		18.5	Handling of desiccants, ready-mixed dry mortar	R 11	V 6
1	Production of margarine, edible fats and oils			11	Food sales establishments, points of sale, serving counters and halls			18.6	Packaging, despatch of sheet glass	R 11	V 6
1.1	Dripping, cooking fat	R 13	V 6	11.1	Reception of goods meat	R 11			Handling of non-stick agents		
1.2	Edible oil refineries	R 13	V 4	11.2	Reception of goods fish	R 11			Etching and acid polishing plants for glass	R 11	
1.3	Production and packaging of margarine	R 12		11.3	Serving counters for meat and sausage, non-packed goods	R 11		19	Concrete works		
1.4	Production and packaging of edible fat, filling of edible oil	R 12		11.4	Serving counters for meat and sausage, packed goods	R 10		19.1	Concrete washing areas	R 11	
				11.5	Serving counters for fish	R 12		20	Storage depots		
2	Dairy products, preparation and processing, cheese production			11.6	Meat preparation room	R 12	V 8	20.1	Stores for oils and greases	R 12	V 6
2.1	Fresh milk processing, incl. butter-making	R 12		11.7	Florists' shops and service rooms	R 11		21	Chemical and thermal treatment of iron and steel and other metals		
2.2	Cheese-making, storage and packaging	R 11		11.8	Sales areas with permanent oven installations	R 11		21.1	Pickling plants	R 12	
2.3	Icecream manufacture	R 12		11.9	Sales areas with permanent „friteuse“ or grill installations	R 12	V 4	21.2	Hardening plants	R 12	
				11.10	Sales and customer service areas	R 9		21.3	Laboratories	R 11	
3	Production of chocolate and confectionery			11.11	Preparation areas for foodstuffs for self-service sale	R 10		22	Metallurgical processes, metal workshops		
3.1	Sugar boiling kitchen	R 12		11.12	Cash desk areas, goods wrapping areas	R 9		22.1	Galvanizing shops	R 12	
3.2	Cocoa production	R 12		11.13	Service areas for bread and bakery goods, unpacked goods	R 10		22.2	Grey cast iron working	R 11	V 4
3.3	Raw mix production	R 11		11.14	Serving counters for cheese and cheese products, non-packed goods	R 10		22.3	Mechanical metalworking departments (e.g. turning milling), stamping, pressing, drawing (pipes, wire) departments and areas with high lubricant oil load	R 11	V 4
3.4	Slab and bar chocolate production, manufacture of filled chocolates and pralines	R 11		11.15	Serving counters except for 11.3 to 11.5 and 11.13, 11.14	R 9		22.4	Component cleaning stations, steam cleaning	R 12	
4	Production of bakery goods (bakeries, cake and pastry shops, production of biscuits and dry bakery goods)			12	Public health areas			23	Workshops for vehicle maintenance		
4.1	Dough preparation	R 11		12.1	Disinfection rooms (wet)	R 11		23.1	Repair, maintenance and servicing areas	R 11	
4.2	Areas mainly for the processing of fatty or liquid mixtures	R 12		12.2	Precleaning areas for sterilization	R 10		23.2	Working and testing bays	R 12	V 4
4.3	Washing-up rooms	R 12		12.3	Sanitary areas and heavy soiling areas, intensive care areas	R 10		23.3	Washing bays	R 11	V 4
5	Abattoirs, meat preparation and processing			12.4	Autopsy departments	R 10		24	Workshops for aircraft maintenance		
5.1	Abattoirs	R 13	V 10	12.5	Therapeutic baths, hydrotherapy, mud bath preparation	R 11		24.1	Hangars	R 11	
5.2	Tripe and entrails preparation	R 13	V 10	12.6	Washrooms for operating theatres, plaster rooms	R 10		24.2	Sheds, dockyards	R 12	V 4
5.3	Meat cutting-up	R 13	V 8	12.7	Sanitary areas, station baths	R 10		24.3	Washing bays	R 12	
5.4	Sausage kitchens	R 13	V 8	12.8	Medical diagnostic and therapy areas, massage rooms	R 9		25	Sewage and wastewater treatment		
5.5	Cooked sausage department	R 13	V 6	12.9	Operating theatres	R 9		25.1	Pumping stations	R 12	
5.6	Raw sausage department	R 13	V 6	12.10	Station with sick bed rooms and corridors	R 9		25.2	Sludge dewatering plants	R 12	
5.7	Sausage drying room	R 12		12.11	Medical practices and day clinics	R 9		25.3	Computer rooms	R 12	
5.8	Smoking department	R 12		12.12	Apothecaries (chemnists' shops with dispensing departments)	R 9		25.4	Workstations, parking, working platforms for service and maintenance	R 12	
5.9	Brine department	R 12	V 6	12.13	Laboratories	R 9		26	Fire stations		
5.10	Poultry processing	R 12		12.14	Hairdressing salons	R 9		26.1	Fire service vehicles parking stations, garages	R 12	
5.11	Store for sausage casings	R 12		13	Laundries			26.2	Hose servicing areas	R 12	
5.12	Cutting-up and packaging department	R 12		13.1	Rooms with washing machines or com- bined washing machines and spin-driers	R 9		27	Banks		
6	Preparation and processing of fish, delicatessen products			13.2	Rooms with washing machines, in which the washing is removed while dripping wet	R 11		27.1	Counter halls	R 9	
6.1	Preparation and processing of fish	R 13	V 10		Rooms for ironing and mangling	R 9		28	Garages (except for areas given in Para. 0 of this Appendix)		
6.2	Production of delicatessen goods	R 13	V 6	14	Animal feed concentrate production			28.1	Garages, multi-storey and underground	R 10	
6.3	Mayonnaise production	R 13	V 4	14.1	Dry feed production	R 11		29	Schools and nursery schools (kindergartens)		
7	Vegetables preparation and processing			14.2	Feed concentrate production with use of fat and water	R 11	V 4	29.1	Entrances, corridors, indoor recreation areas	R 9	
7.1	Sauerkraut production	R 13	V 6	15	Leather goods production, textiles			29.2	Classrooms, assembly halls	R 9	
7.2	Tinned vegetables production	R 13	V 6	15.1	Water workshop in tanneries	R 13		29.3	Staircases	R 9	
7.3	Sterilization rooms	R 11		15.2	Rooms with greenfleshing machines	R 13	V 10	29.4	Toilets	R 10	
7.4	Rooms for preliminary preparation of vegetables for processing	R 12	V 4	15.3	Rooms with use of leather glue	R 13	V 10	29.5	Teaching kitchens in schools (see also Appendix 1, No. 9)	R 10	
8	Wet areas for the production of foodstuffs and drinks (if not specifically mentioned)			15.4	Grease rooms for waterproofing	R 12		29.6	Kitchens in nursery schools (kindergartens) (see also Appendix 1, No. 9)	R 10	
8.1	Storage cellar, fermentation cellar	R 10		15.5	Textile drying departments	R 11		29.7	Mechanical workshops for woodworking	R 10	
8.2	Soft drinks bottling, fruit juice production	R 11		16	Paint and lacquer application shops			29.8	Specialist works departments	R 10	
9	Kitchens, catering establishment, dining-rooms			16.1	Wet grinding areas	R 12	V 10				
9.1	Gastronomic kitchens, restaurant and hotel kitchens			17	Ceramic industry						
9.1.1	Catering for 100 meals a day	R 11	V 4	17.1	Wet grinding (preparation of ceramic raw materials)	R 11					
9.1.2	Catering for over 100 meals a day	R 12	V 4	17.2	Mixers						
9.2	Kitchens for communal catering in homes, schools, kindergartens, sanatoria	R 11			Handling of materials such as bitumen, pitch, graphite, synthetic resins	R 11	V 6				
9.3	Kitchens for communal catering in hospitals, clinics	R 12		17.3	Pressing, extrusion (shaping)						
9.4	Large kitchens for communal catering in university dining halls, canteens, delivery service meals („meals on wheels“)	R 12	V 4		Handling of materials such as bitumen, pitch, graphite, synthetic resins	R 11	V 6				
9.5	Food preparation kitchens, „Fast Food“ kitchens, snack bars	R 12	V 4	17.4	Casting departments	R 11	V 6				
9.6	Defreezing and reheating kitchens	R 10		17.5	Glazing departments	R 12					
9.7	Coffee- and teamaking kitchens, kitchens in „hotels garnis“, station kitchens	R 10		18	Preparation and processing of glass and natural stone						
9.8	Washing-up rooms			18.1	Stone sawing, stone grinding and						
9.8.1	Washing-up rooms for 9.1, 9.4, 9.5	R 12	V 4								

Supplements as per BGR 181:

Selling points, salerooms,	R 11	or	Open-air parking areas	R 10	V 4
Open-air sales areas	R 10	V 4	Outdoor areas	R 11	or
	R 11	or	Entrance areas and stairs	R 10	V 4
Open-air storage areas	R 10	V 4		R 11	or
Workshops for vehicle maintenance	R 11	V 4	Traffic routes	R 10	V 4
Wash halls, wash sites				R 11	or
Parking areas	R 11	or	Loading ramps - covered	R 10	V 4

Loading ramps – uncovered	R 12	V 4
Sloping ramps (for example for wheelchairs, loading bridges)	R 12	
Refuelling areas – covered	R 11	
Refuelling areas – uncovered	R 12	

SPECIFICATION

In the industrial and commercial areas, several tonnes of weight, vibrations and oscillations distributed over only a few centimetres of sub-flooring subject production facility floors to a lot of wear and tear. These floors have to withstand the extreme chemical and thermal loads caused by production processes and forklifts, industrial robots or other heavy machinery literally weighing tonnes that roll over them in production facilities, workshops or washing plants every day without breaking or cracking.

This is the classic area of application for Stalotec® industrial clinker tiles, which come in extreme thicknesses for industrial strength performance. An extruded industrial ceramic, Stalotec® delivers extra traction due to the optimal interlocking properties of the sub-flooring with its highly textured reverse side.

HEAVY





As the thickness of this industrial clinker ceramic increases, its ability to distribute loads under mechanical stress – and therefore its break resistance – also increases. A special high temperature firing also makes Stalotec® indestructible in the face of chemical and thermal loads.

HYGIENIC · ANTI SLIP · DURABLE

THE STEP SAFETY CONCEPT THAT GRABS ABRASION RESISTANT

Secuton® – where step safety is a legal requirement.

Four slip resistant surface profiles that meet all legal slip resistance requirements plus one 10 mm tile in nine fresh colour shades. All this makes Secuton® a safety concept that does not only grab in any commercial, industrial or publicly used area and it is also good looking and abrasion-free. Secuton® features the 'hard glaze 2.0' surface finish specially developed by STRÖHER, a particularly resistant glaze based on highly refined mineral-oxidic raw materials. In comparison to other slip resistant surfaces that are only equipped with sensitive engobes, this enables Secuton® to meet the highest slip resistance level—even with its surface profile – and in high traffic areas, it is 100 percent abrasion-resistant and easy to clean.

SECUTON®

High level hygienic areas

Coved base skirting creates the transition from the floor tiles to the walls. These are mostly used in areas requiring a high level of hygienic areas, such as, food and beverage production or commercial kitchens.



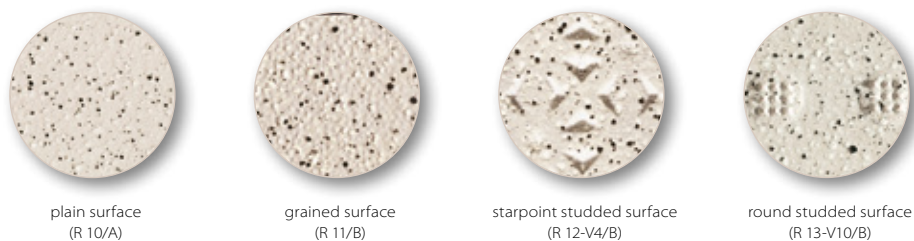
Colours:



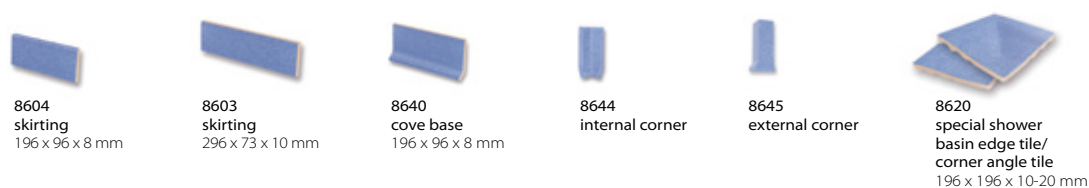
Formats:



Surfaces:



Accessoires:



INDESTRUCTIBLE THANKS TO CONTINUOUS FIRING

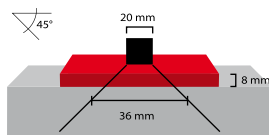
Stalotec® – extra strong with extra traction due to overthickness and extrusion.

This ceramic was produced in an extrusion process. The highly textured quality of its reverse side enables it to optimally interlock with the ground and yields a tensile bond strength that even withstands dynamic or rolling loads.

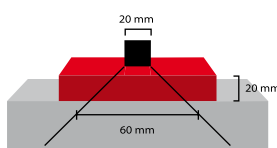
After a special tunnel kiln firing hardly any other floor is as tough and hard-wearing as this extruded industrial floor tiling – for indoors and, thanks to integrated frost resistance due to the special production process, for outdoors as well. Solid-coloured for abrasion resistance and with a material thickness of up to 20 mm Stalotec® slabs withstand even the heaviest mechanical stresses caused by heavy machinery or forklift trucks. Even chemical stress caused by harsh cleaning materials or acids cannot damage the unglazed surface. The right choice when it comes to heavy load stresses, durability and solid quality.

STALOTEC®

**Heavy weights:
the material strength is crucial.**



System using thinner tiles – 8 mm.



System using thicker tiles – 20 mm.

Thanks to an increase in tile strength, increasingly demanding loads can now be supported. The load-distributing effect of tiles and plates depends upon their thickness.

Available now upon request,
the new STRÖHER „ExtruTec® seal“
ceramic sealing for a significant
reduction in susceptibility to dirt
and stains!



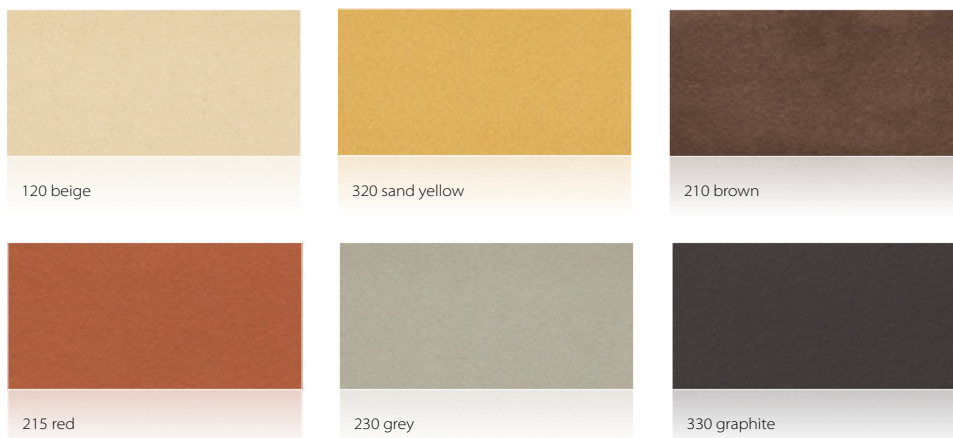
standard surface/body



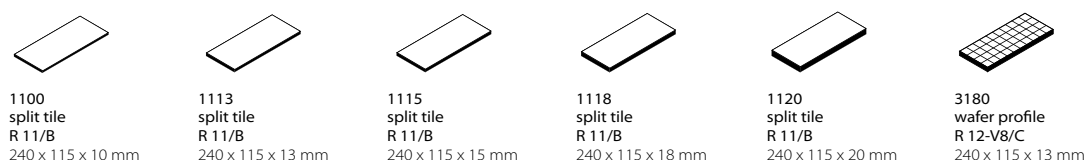
STRÖHER „ExtruTec® seal“ ceramic sealing



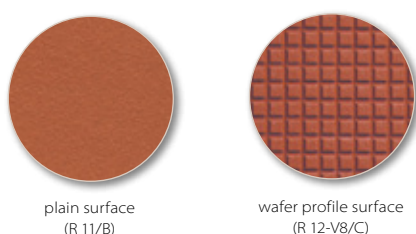
Colours:



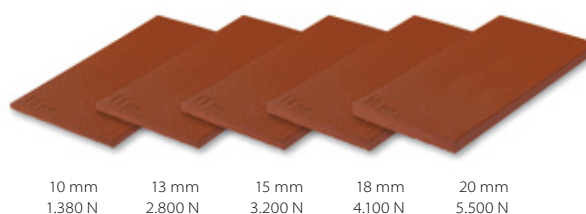
Formats:



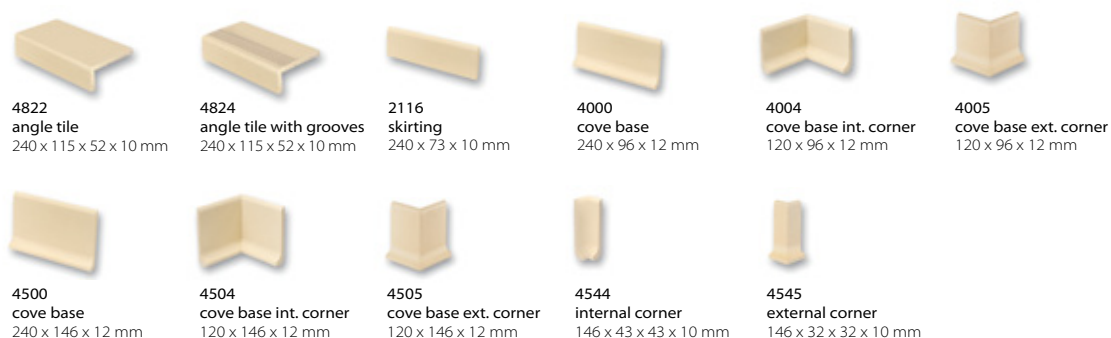
Surfaces:



Thicknesses/breaking strength:



Accessoires:





**MADE IN
DILLENBURG**

**POWER
PERFORMANCE**

ströher®
Clinker. Ceramics. Competence.

STRÖHER GmbH · Ströherstraße 2-10 · D-35683 Dillenburg/Germany
Tel.: +49 (0) 2771 391-0 · Fax: +49 (0) 2771 391-340 · E-Mail: info@stroehrer.de · www.stroehrer.com