

Always on firm ground.

Ferrum: ceramics for the hard everyday life in industry.



Apprenticeship and testing establishment,
Weinsberg, Germany

Production shed,
Nuremberg, Germany

Meat processing,
Castelnuovo, Italy



Contents

4-5 Table of colours / models

6-7 Laying instructions

Meat processing,
Castelnuovo, Italy



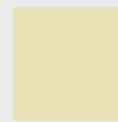
Quality ceramics: an investment that pays off.

Specialists are more efficient. This also applies to the ceramic floor tiles of the series Ferrum, which were especially developed for the extreme requirements of industrial enterprises. The integrally coloured, unglazed split tiles are particularly slip-resistant and thus prevent accidents at work. They are extremely robust and by far more resistant to compression than concrete or coating materials. A technically sophisticated range of accessories including cove skirtings, nosing tiles and gutter tiles facilitates the realization of company-specific complete solutions.

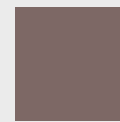
Apart from this, Ferrum offers all the advantages of high-quality architectural ceramics made in Germany. The tiles permit quick and thus inexpensive laying – also by the efficient vibration

method. They are resistant to chemicals, humidity and other loads quite usual in industrial everyday life. And they are convincing by their practically unlimited durability. In addition, ceramics is non-combustible. This means that no toxic gases are released even in the case of fire. Finally, the minimal cleaning works required reduce the maintenance costs. Result: Ferrum is an investment that pays off.

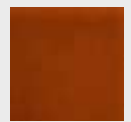
For Agrob Buchtal, the world-wide renowned company providing ceramic problem solutions, high-quality products and first-class service are inseparable. That is why planners and architects using our products can benefit from our in-house planning department free of charge – for competent support in all phases of the project.



902
grey-white



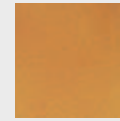
929
stone-grey



958
brick-red



900
grey-beige



950
colorado-brown



984
anthracite



989
mid-grey

Extruded Ceramic Tiles, Precision, DIN EN 14411, group AI, unglazed (UGL)*
for floor coverings in indoor and outdoor areas (split tiles)

Nosing Tile

25 x 12.5 cm



Floor Tiles

25 x 12.5 cm



25 x 12.5 cm



25 x 12.5 cm



11 mm thick

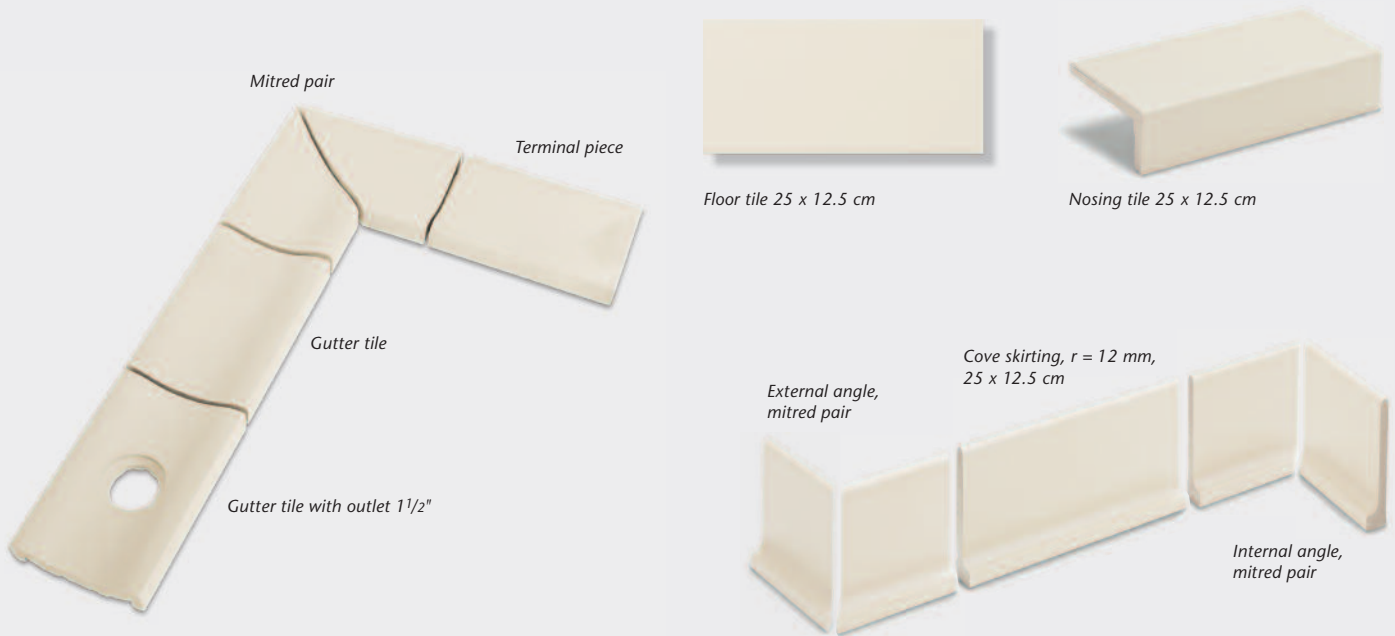
14 mm thick

20 mm thick

		4822	1100	1160	1110			Model number
		25 x 12.5 cm	25 x 12.5 cm	25 x 12.5 cm	25 x 12.5 cm			Nominal dimensions
		240 x 115/52 x 11	240 x 115 x 11	240 x 115 x 14	240 x 115 x 20			Work size mm
		4.00	33.00	33.00	33.00			m ² - pieces
		3.88/m	22.77	28.38	40.26			m ² - kg
		8 pieces	24	20	14			Bundle - pieces
		2.00	0.73	0.61	0.42			Bundle - m ²
		7.76	16.56	17.20	17.08			Bundle - kg
			52.36	43.64	30.55			Pallet - m ²
			1.192.32	1.238,40	1.229.76			Pallet - kg
		see below	see below	R12/B	see below			Slip resistance
			1 - 2	2 - 3	3 - 4			Stress group
		R10/A	R10/A		R10/A			
		900-4822	900-1100		900-1110			900 grey-beige
		R12/B	R12/B	902-1160	R12/B			902 grey-white
		902-4822	902-1100		902-1110			
		R12/B	R12/B					929 stone-grey
		929-4822	929-1100					
					R11/B			950 colorado-brown
					950-1110			
					R11/A			958 brick-red
					958-1110			
		R12/B	R12/B					984 anthracite
		984-4822	984-1100					
		R12/B	R12/B					989 mid-grey
		989-4822	989-1100					

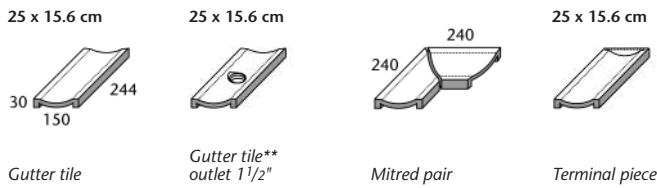
*Exception: colour nos. 950, 958 and 984 correspond to the DIN EN 14411, group AI_a.



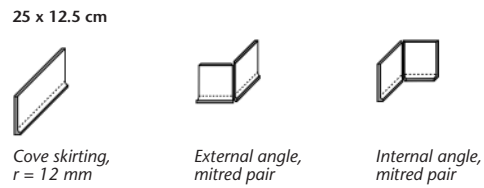


Extruded Ceramic Tiles, Precision, DIN EN 14411, group AI, unglazed (UGL)* for floor coverings in indoor and outdoor areas (split tiles)

Gutter Tiles (trough depth 15 mm)



Skirtings



Gutter tile	Gutter tile** outlet 1 1/2"	Mitred pair	Terminal piece	Cove skirting, r = 12 mm	External angle, mitred pair	Internal angle, mitred pair	
54420	54421	54422	54423	4020	4023	4024	Model number
25 x 15.6 cm	25 x 15.6 cm		25 x 15.6 cm	25 x 12.5 cm			Nominal dimensions
244 x 150 x 30	244 x 150 x 30	(2x) 240 x 150 x 30	244 x 150 x 30	240 x 125/12 x 11	(2x) 131 x 125/12 x 11	(2x) 115 x 125/12 x 11	Work size mm
4.00				4.00			m - pieces
7.20/m	1.53/piece	3.03/pair	1.95/piece	3.00/m	0.80/pair	0.75/pair	m/pair - kg
8 pieces	8 pieces	4 pieces	8 pieces	16 pieces	8 pairs	8 pairs	Bundle - pcs./pairs
2.00				4.00			Bundle - m
14.40	12.24	12.12	15.60	12.00	6.40	6.00	Bundle - kg
							Pallet - m
							Pallet - kg
see below	see below	see below	see below				Slip resistance
R10/A	R10/A	R10/A	R10/A				
900-54420	900-54421	900-54422	900-54423	900-4020	900-4023	900-4024	900 grey-beige
R12/B	R12/B	R12/B	R12/B				
902-54420	902-54421	902-54422	902-54423	902-4020	902-4023	902-4024	902 grey-white
				929-4020	929-4023	929-4024	929 stone-grey
				984-4020	984-4023	984-4024	984 anthracite
				989-4020	989-4023	989-4024	989 mid-grey

* Exception: colour no. 984 corresponds to the DIN EN 14411, group AI_a.
 ** fitting insert for the outlet: article no. 182 (brass with sieve of V4A), installation prior to laying.





Laying instructions

Exclusively mechanical stress

Preparation of the base

The base must be firm, clean and good bearing. Surfaces reducing the adherence and impurities have to be carefully removed. The laying base must be ready for laying, flush and perpendicular according to DIN 18202. Poured asphalt and cement screeds must be primed with PCI Gisogrund*. Cement bases must be sufficiently pre-wetted if subsequent sealing is intended.

Sealing

Stress class A2 according to the List of building regulations (Bauregelliste) A, part 2: application of the sealing in at least two completely covering layers with PCI Seccoral 2K*, minimum dry layer thickness of 2.0 mm. All junctions, corners, movement joints, penetrations etc. have to be sealed with PCI Pectape* sealing tapes or sealing collars.

Laying

For the largely void-free laying with flexible floating-bed mortar PCI Nanoflott flex*:

after the application of a contact layer on the laying base, the mortar must be pre-applied by means of a floating-bed or medium-bed trowel in such a way that the entire surface of the ceramic tiles is embedded in the mortar; this is ensured by a slightly sliding movement at the laying of the tiles.

Pointing

With modified cement mortar PCI Durafug NT* by the grouting method. After the setting of the joint grouting mortar, wash the surface and remove the remaining mortar film after drying by means of a humid sponge.

Movement joints

The movement joints pre-filled with PCI DIN-Polyband* are closed in an elastic manner with the PU sealing material PCI Elritan 140*. Prior to pointing, the cleaned joint edges must be primed with PCI Elastoprimer 135*.

Protection against stains/impregnation

Our unglazed Ferrum split tiles have to be impregnated to protect them against the formation of stains. For this, the cleaned and dry floor surface must be treated with PCI (Feinsteinzeug)-Imprägnierung* (impregnating agent for porcelain stoneware).

These laying instructions are to be considered only as general information. For the concrete application in projects, it may be necessary to obtain specific recommendations from the system manufacturer.

*** The processing guidelines/product information of PCI Augsburg GmbH (www.pci-augsburg.de) must be strictly observed!**

Material consumption for the PCI products to be used

PCI Gisogrund: approx. 0.15 to 0.2 l/m²

PCI Seccoral 2K: at least 4.0 kg/m²

PCI Nanoflott flex: approx. 4.0 to 5.0 kg/m²

PCI Durafug NT:	Joint width	Joint depth	Consumption
	10 mm	8 - 10 mm	approx. 2.1 kg/m ²
	8 mm	8 - 10 mm	approx. 1.7 kg/m ²
	6 mm	8 - 10 mm	approx. 1.3 kg/m ²
	10 mm	10 - 15 mm	approx. 3.1 kg/m ²
	8 mm	10 - 15 mm	approx. 2.5 kg/m ²
	6 mm	10 - 15 mm	approx. 1.9 kg/m ²
	10 mm	15 - 20 mm	approx. 4.2 kg/m ²
	8 mm	15 - 20 mm	approx. 3.4 kg/m ²

PCI Elastoprimer 135: approx. 0.01 l/lin.m.

PCI Elritan 140: Joint 10 x 10 mm: approx. 110 ml/lin.m.

Triangular joint 10 x 10 mm: approx. 60 ml/lin.m.

PCI Feinsteinzeug-Imprägnierung: approx. 25 ml/m²



Laying instructions

Mechanical and chemical stress

Preparation of the base

The base must be dry, firm, clean and good bearing. Smooth surfaces must be roughened by shot-peening or slight grinding; impurities reducing the adherence have to be carefully removed. The laying base must be ready for laying, flush and perpendicular according to DIN 18202. Prior to the application of the sealing, the base must be primed with PCI Epoxigrund 390*; after that, a layer of silica sand is spread over the surface.

Sealing

Stress class C according to the List of building regulations (Bauregelliste) A, part 2: application of the sealing in at least two completely covering layers with PCI Apoflex TF*, minimum dry layer thickness of 2.0 mm. All junctions, corners, movement joints, penetrations etc. have to be sealed with PCI Pecitape* sealing tapes or sealing collars.

Laying

With the two-component reaction resin bonding agent PCI Durapox NT* (mixed with silica sand HS 020) by the buttering-floating method:

after the application of a thin contact layer on the laying base and material, the laying mortar must be applied by means of a toothed trowel (6-8 mm toothing) both on the laying base and on the tile reverse side in order to obtain a largely void-free embedding of the ceramics.

Pointing

With PCI Durapox NT* by the grouting or the spraying method. After approx. 5 to 10 minutes, pre-wash the surface with warm water and PCI Epoxi-Schwamm hart* (hard sponge). After that, wash with PCI Epoxi-Schwamm fein* (soft sponge). Wash off any remaining film at the final cleaning, i.e. approx. 24 hours after pointing. Cleaning is facilitated by adding PCI RS-Reiniger-Extra* to the washing water.

Movement joints

The movement joints pre-filled with PCI DIN-Polyband* are closed in an elastic manner with the PU sealing material PCI Elritan 140*. Prior to pointing, the cleaned joint edges must be primed with PCI Elastoprimer 135*.

Protection against stains/impregnation

Our unglazed Ferrum split tiles have to be impregnated to protect them against the formation of stains. For this, the cleaned and dry floor surface must be treated with PCI (Feinsteinzeug)-Imprägnierung* (impregnating agent for porcelain stoneware).

These laying instructions are to be considered only as general information. For the concrete application in projects, it may be necessary to obtain specific recommendations from the system manufacturer.

*** The processing guidelines / product information of PCI Augsburg GmbH (www.pci-augsburg.de) must be strictly observed!**

Material consumption for the PCI products to be used

PCI Epoxigrund 390: approx. 0.4 kg/m²

PCI Apoflex TF: at least 2.8 kg/m²

PCI Durapox NT:	Joint width	Joint depth	Consumption
Pointing	10 mm	10 mm	approx. 0.8 kg/m ² (+ 1.3 kg/m ² HS 020)
	8 mm	10 mm	approx. 0.6 kg/m ² (+ 1.0 kg/m ² HS 020)
	6 mm	10 mm	approx. 0.45 kg/m ² (+ 0.75 kg/m ² HS 020)
Laying, toothing 2 x 6		approx. 3 mm	approx. 1.8 kg/m ² (+ 2.95 kg/m ² HS 020)
Laying, toothing 2 x 8		approx. 4 mm	approx. 2.45 kg/m ² (+ 4.0 kg/m ² HS 020)

PCI Feinsteinzeug-Imprägnierung: approx. 25 ml/m²



Deutsche Steinzeug Keramik GmbH

D-92519 Schwarzenfeld

Telephone: +49 (0) 94 35-391-0

Fax: +49 (0) 94 35-391-34 52

E-Mail: architekturkeramik@deutsche-steinzeug.de

Internet: www.agrob-buchtal.de

You will find contact names
for other countries on the Internet at:
www.agrob-buchtal.de