

AREAS OF APPLICATION

CHEMICAL & PHARMACEUTICAL INDUSTRY



FIRE & RESCUE STATIONS



BEVERAGE INDUSTRY



COMMERCIAL BUILDINGS



FOOD INDUSTRY



FOOD RETAILING



PUBLIC AREAS



STONEWARE mvtec

COLOURS and COLOURCODES

FINE GRAINED	Light grey	200	Dark grey	210	Titanium grey	220	Anthracite	230
	Beige	300	Arkona white	310	Natura	320	Sand yellow	400
	Cream yellow	410						

COARSE GRAINED	Coro	600	Katerina	602	Gitta	610	Tina	611
	Freia	612	Tessa	613	Atlanta	250	Grey porphyry	251

DEKORTEC	Galaxyt	730	Sandstorm	751	Green Jade	760
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CLINKER TILES	Brick red	110	Blue-red flamed	150
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Technical values: tested according to DIN EN ISO 10545 Section 1-16

Argelith fine porcelain stoneware tiles comply in all tested properties with the requirements of the material Norm DIN EN 14411, Section G, Group B I and UGL.

Example: Hexalith 108 x 125 x 18 mm	Requirement according to DIN EN 14411	Argelith Bodenkeramik
Modulus of rupture N/mm ² and average breaking strength in N	min. 35 N/mm ²	ca. 73,3 ± 4,1 ca. 15289 ± 911
Resistance against deep wear	max. 175 mm ³	ca. 100 mm ³
Water absorption in weight - %	max. 0,5 %	< 0,05 %

The above values are an extract from a test certificate. We will happily send you a test certificate for your desired material.

Surfaces:

- Smooth**
R 9 - R 10 - R 11
- Security**
R 12
- Nopped/Star**
R 12/V 06
R 13/V 08

Technical values according to DIN 18158

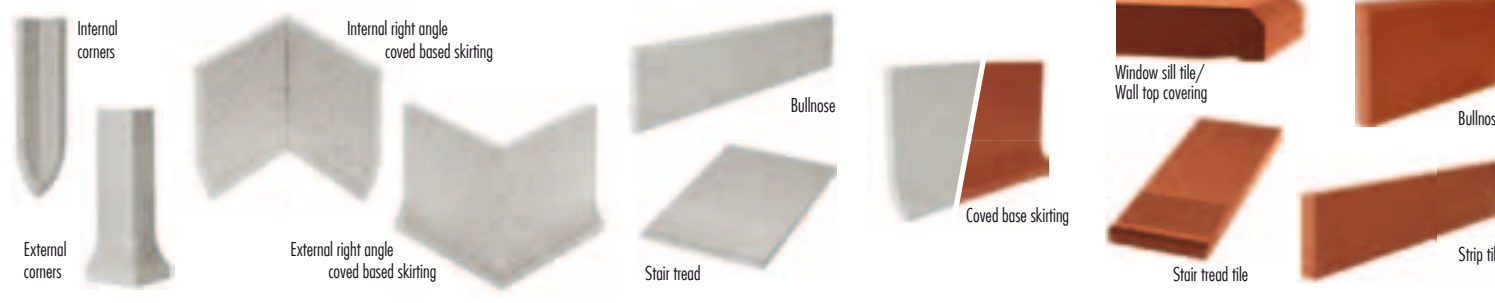
Tested characteristic	requirement in DIN	Argelith is better!
Modulus of rupture	min. 20 N/mm ²	38,1 N/mm ²
Compressive strength	min. 150 N/mm ²	252 N/mm ²
Water absorption	max. 3 %	fulfilled
Acid resistance	required	fulfilled**
Alkali resistance	required	fulfilled**
Frost resistance	required	fulfilled
Resistance against wear by grinding	max. 10 cm ²	5,7 cm ²
Size consistency	±1,5%	fulfilled
Coefficient of linear thermal expansion	5-8 x 10 ⁻⁶ /K ¹	6,7 x 10 ⁻⁶ /K ¹
Thermal shock resistance	required	fulfilled

** Exception: Hydrofluoric acid (HF) and its compounds

Surfaces:

- Smooth**
R 10 - R 11
- Security**
R 12
- Nopped profile**
R 12/V 06

COMPLETE RANGE: ACCESSORIES STONEWARE and CLINKER TILES



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Strong tiles for heavy loads

STONEWARE mvtec
dekortec

CLINKER TILES
MADE IN GERMANY

QUALITY SINCE 1870



Argelith Bodenkeramik H. Bitter GmbH has decades of experience in the production of high quality tiles and ceramics.

1870: Building of the Hoffmann Ring kiln - first ceramic production in Bad Essen – Wehrendorf

1965: Concentration to clinker tile production on 16mm and greater thickness tiles

2001: Building of the stoneware factory

2005: Start-up for the second roller kiln

2009: Diversification of our product line called dekortec®. This new line combines functionality with aesthetics in a broad range of attractive designs

AREAS OF APPLICATION



AUTOMOTIVE (SERVICE & SHOWROOM)



STRONG TILES FOR HEAVY LOADS

A comparative test* of Argelith quality

Argelith Bodenkeramik H. Bitter GmbH has been a manufacturer of ceramic tiles since 1965, specialising in the production of thicknesses starting at 16 mm.

Boasting many years of experience and technical expertise, Argelith is the only supplier to offer clinker tiles in thicknesses up to 30 mm and stoneware in thicknesses up to 18 mm.

* Excerpt from the test report „Load distribution of tiles and slabs“



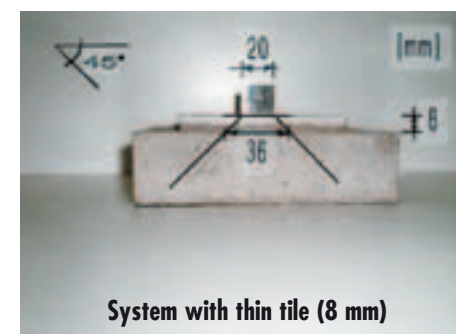
15 mm tile on concrete slab:
Fracture of slab and tile at 37.800 N (average value)



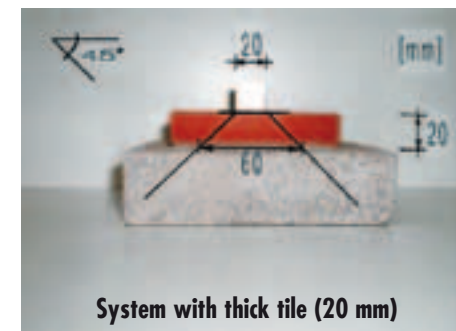
20 mm tile on concrete slab
Fracture of slab and tile at 45.200 N (average value)

The test clearly shows:

- ✓ **The thicker the tile, the greater the load required to cause fractures.**
- ✓ **Load distribution of a tile depends on its thickness.**
- ✓ **As tile thickness increases, load distribution is also greater, resulting in increased mechanical resistance.**
- ✓ **Ceramic tiles work to distribute the load into the substructure. This load-distribution effect is greater when thicker tiles are used. This should be taken into account during selection and when determining the expected mechanical load.**



System with thin tile (8 mm)



System with thick tile (20 mm)

Tests were carried out with a load increase of approximately 1.000 N (corresponds to 100 kg) per second. The break occurred as the force decreased, bringing along with it visible damage to the test pieces..

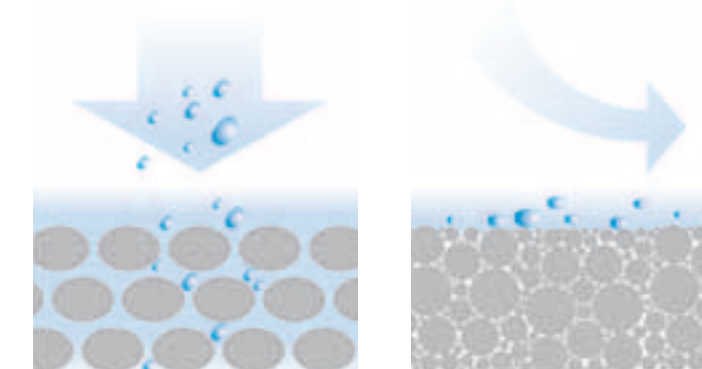
System tested Load distribution 20x20mm	Breaking load in N	
	Single values	Average value
Mortar (no tile) 150 x 150 x 40	19.000 20.500 22.000	20.500
tile 100 x 100 x 8 mm on mortar 150 x 150 x 40 mm	28.000 30.000 26.000	28.000
tile 100 x 100 x 12 mm on mortar 150 x 150 x 40 mm	34.000 35.500 33.000	34.200
tile 100 x 100 x 15 mm on mortar 150 x 150 x 40 mm	37.000 37.500 39.000	37.800
tile 100 x 100 x 20 mm on mortar 150 x 150 x 40 mm	46.000 45.500 44.000	45.200

CLEAN AND HYGIENIC • ATTRACTIVE AND DURABLE



STONEWARE
mvtec®

Clean, hygienic ceramic flooring able to withstand extreme loads are no problem with mvtec® stoneware by Argelith. mvtec® stands for finest preparation of raw materials and compression in Europe's most modern stoneware plant for "strong thicknesses"! Maximum quality standards when selecting raw materials and extreme care in all production steps result in one of the finest stoneware tiles in the world.



Traditional stoneware tile
Voids lead to increased water absorption.

mvtec® stoneware tile
The extreme density prevents water and moisture from penetrating. This helps achieve maximum stain resistance.

Advantages:

- ✓ **Water absorption of < 0,05%**
- ✓ **No glasure / impregnation necessary**
- ✓ **Easy cleaning and low maintenance**
- ✓ **Highly valuable**

An attractive surface and extreme load bearing are the critical attributes of Argelith Bodenkeramik. Our fully vitrified stoneware tiles are also notable for their safety features. Argelith tiles are dependable protection against breakage, abrasion, slippage, damp and dirt.

Argelith stoneware tiles are systematically checked to guarantee compliance with the strict criteria of the DIN EN 14411 (ceramic tiles and plates).

Design is more important today than ever when it comes to flooring. To meet our customers' requirements we offer a wide range of shapes, sizes, colours and surface structures. Additionally, we offer different degrees of load bearing in 12, 15 and 18 mm.

Using thick tiles: Advantages

- ✓ **Highest mechanical loads possible**
- ✓ **Slip resistance from R 9 to R 13 08**
- ✓ **Chemical resistant**
- ✓ **Frost resistant**
- ✓ **Temperature resistant even over 100°C**
- ✓ **environmentally tiles through the assignment of only natural resources**

