RAKO SYSTEM

RAKO SYSTEM building chemistry extends its services for under tile and surfacing solutions supplying adhesive, penetration, under tile water-proofing, corrective, leveling, jointing and cleaning products.

Its mission statement is to provide residential and commercial projects with the latest developments in the industry together with the technical support required to fit a full system solution with relation to materials, methods of application, processing and finally on site guidelines.

RAKO SYSTEM has a full dedicated research and development team specialized in under tile and surfacing solutions for ceramic, natural and engineered stones.

TECHNICAL SUPPORT

www.rako.eu

info@rako.cz

Contact: www.rako.cz/en/about-us/contact/company.html

RAKO SYSTEM

PENETRATION AND CONTACT MATERIALS

PE 201

DEEP PENETRATION

MARKING		USAGE (appr.)	PACKAGING pcs/pallet (kg)
PE 201	BCN PPH 05 00 J0V	0,15–0,25 l/m²	5/480
	BCN PPH 10 00 J0V	0.15–0.20 l/m²	10 / 480

PRIMER PE 201 – DEEP STRENGTHENING PENETRATION COATING

INTENDED USE:

Deep strengthening primer intended in a prescribed concentration for penetration of less solid absorbent surfaces and base structures. PE 201 is applied before cement screeds, water proofing or other cement based materials in both internal and external environments. Coating with PE 201 reduces absorption, reinforces the surface of the base, and improves flowing properties most importantly increasing the bonding strength between the products. PE 201 is suitable for plasterboards.

Other important information:

- Shelf life: 12 months – If stored in a dry place
- Dilution: 1:1
- Drying time: Approximately 12 hours depending on concentration and weather.
- **PROTECT FROM FROST!**

PE 202

UNIVERSAL PENETRATION PRIMER

MARKING		USAGE (appr.)	PACKAGING pcs/pallet (kg)
PE 202	BCN PPP 01 00 J0V	0.10–0.35 l/m²	1 / 480
	BCN PPP 05 00 J0V	0.10–0.35 l/m²	5 / 480
	BCN PPP 10 00 J0V	0.10–0.35 l/m²	10 / 480

PRIMER PE 202 - UNIVERSAL PENETRATION COATING

INTENDED USE:

Water-born polymer dispersion, intended in a prescribed concentration for penetration of absorbent surfaces and base structures. PE 202 is applied before cement screeds, water proofing or other cement based materials in both internal and external environments. Coating with PE 202 reduces absorption, reinforces the surface of the base, and improves flowing properties most importantly increasing the bonding strength between the products.

Other important information:

- Shelf life: 12 months – If stored in a dry place
- Dilution: 1:5 (depending on base)
- Drying time: Approximately 60–120 minutes depending on concentration and weather.
- **PROTECT FROM FROST!**

EPA 1

EPOXY PENETRATION

MARKING			USAGE (appr.)	PACKAGING pcs/pallet (kg)
EPA 1	BCN P19 05 00 J0Z	✉	0.1–0.16 kg/m²	5

EPA 1 – TWO COMPONENT WATER SOLUBLE EPOXY PENETRATION COATING

INTENDED USE:

Epoxy primer, intended for penetration of fresh (minimum 24 hours old), moist and immature concrete surfaces. EPA 1 is used as a penetration layer. Coating with EPA 1creates outstanding adhesion to concrete surfaces and penetrates deep into the surface due to its low viscosity. It is fast drying, hardens old concrete surfaces and significantly improves chemical resistance. EPA 1 contains no volatile organic compounds (VOCs).

Other important information:

- Shelf life: 12 months – If stored in a dry place
- Pot life: 60 minutes depending on weather
- Drying time: Minimum 6 hours depending on weather.
- **PROTECT FROM FROST!**

✉ **goods available to order**

PENETRATION AND CONTACT MATERIALS

CP 203

CONTACT BRIDGE

MARKING		USAGE (appr.)	PACKAGING pcs/pallet (kg)
CP 203	BC1 241 05 00 J0V	0.25–0.40 kg/m²	5 / 360

PRIMER CP 203 – CONTACT COATING FOR NON-ABSORBENT BASES

INTENDED USE:

Bonding bridge based on a solvent free synthetic dispersion and mineral filler intended for smooth and compact bases (glass, ceramics, polished stone, machine-finished concrete, synthetic coatings, etc.) in both internal and external environments. Coating with CP 203 generates strong bonding between the non absorbent substrate and the applied chemicals.

Other important information:

- Shelf life: 12 months – If stored in a dry place
- Drying time: 6 – 48 hours (max) depending on weather
- **PROTECT AGAINST FROST!**

PE 204

CONTACT BRIDGE

MARKING		USAGE (appr.)	PACKAGING pcs/pallet (kg)
PE 204	BC1 201 05 07 J0V	0.90 kg/m²	5 / 1 000
	BC1 201 25 07 J0V	0.90 kg/m²	25 / 1 200

PRIMER PE 204 – CONTACT COATING FOR NON-ABSORBENT BASES

INTENDED USE:

Bonding bridge on cement basis intended for smooth and compact bases (glass, ceramics, polished stone, machine-finished concrete, synthetic coatings, etc.) in both internal and external environments. Coating with PE 204 generates strong bonding between the non absorbent substrate and the applied chemicals. PE 204 is NOT suitable for stainless steel surfaces and has low elasticity.

Other important information:

- Shelf life: 6 months – If stored in a dry place
- Pot life: min. 2 hours depending on weather
- Drying time: 24 hours depending on weather

EM 10

REFINING EMULSION

MARKING		USAGE (appr.)	PACKAGING pcs/pallet (kg)
EM 10	BCN P13 05 00 J0V		5 / 480
	BCN P13 10 00 J0V		10 / 480

EM 10 – LIQUID ADDITIVE FOR CEMENT PRODUCTS

INTENDED USE:

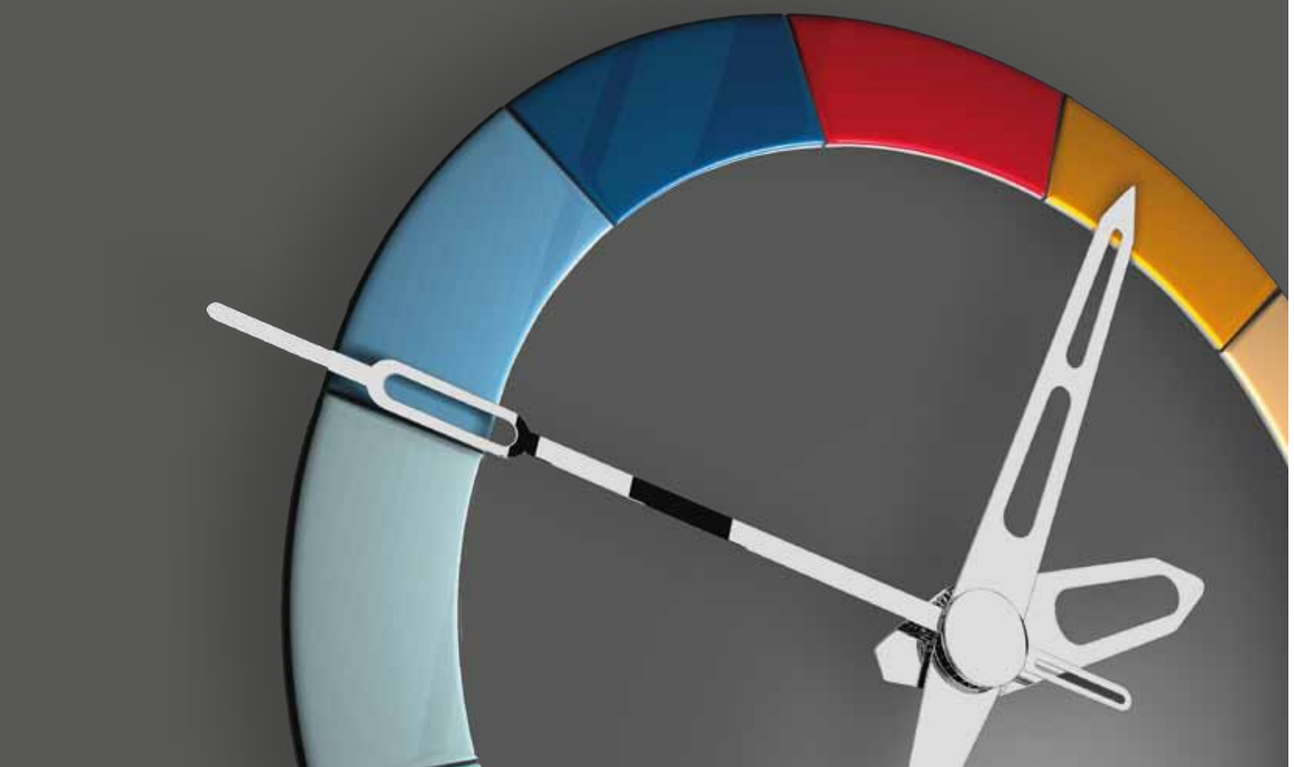
Liquid additive intended for use in cement products such as screed, mortars, smooth concrete, adhesive, grout, waterproofing... EM 10 increases water, frost, abrasive and chemical resistance. It also improves the elasticity, bending and strengthens the cement based product.

Other important information:

- Shelf life: 12 months – If stored in a dry place
- Drying time: Depending on product it is added to
- pH: 11
- **PROTECT AGAINST FROST!**

RAKO SYSTEM

CORRECTIVE MATERIALS



MO 35 QUICK

QUICK-REPAIR MATERIAL

MARKING		USAGE (appr.)	PACKAGING pcs/pallet (kg)
MO 35 QUICK	BC1 161 10 07 J0V	18 kg/m²/10 mm	10 / 1 000

MO 35 QUICK – QUICK SETTING CORRECTIVE MATERIAL

INTENDED USE:

Design mortar with hydraulic fillers, minerals and additives used for immediate high strength reparation on all concrete base structures. It is also suitable for high strength fixations and anchoring of elements.

Other important information:

- Shelf life: 6 months – If stored in a dry place
- Pot life: max. 20 minutes depending on weather
- Traffic ability: After 1 hour
- Compressive strength: min. 35 MPa
- Granularity: 0 – 0.7 mm
- Recommended thickness per layer: 2 – 30 mm

MO AC

CORROSION COATING

MARKING		USAGE (appr.)	PACKAGING pcs/pallet (kg)
MO AC	BC1 141 01 00 J0V	0.19 kg/bm/2 layers	1/450

MO AC – ANTICORROSIVE POLYMER CEMENT COATING FOR STEEL REINFORCEMENT

INTENDED USE:

Mixing MO AC with water generates a coat which reinforces damaged steel and protects it against corrosion. It creates a stable coating with excellent adhesion to concrete materials.

Other important information:

- Shelf life: 6 months – If stored in a dry place
- Pot life: 1 hour depending on weather
- Traffic ability: After 5 hour depending on weather
- Granularity: 0 – 0.3 mm
- Minimum thickness of coat: min. 1.1 mm

MO 50

LEVELLING SUBSTANCE

MARKING		USAGE (appr.)	PACKAGING pcs/pallet (kg)
MO 50	BC1 151 25 12 J0V	18 kg/m²/10 mm	25 / 1200

MO 50 – CORRECTIVE MORTAR

INTENDED USE:

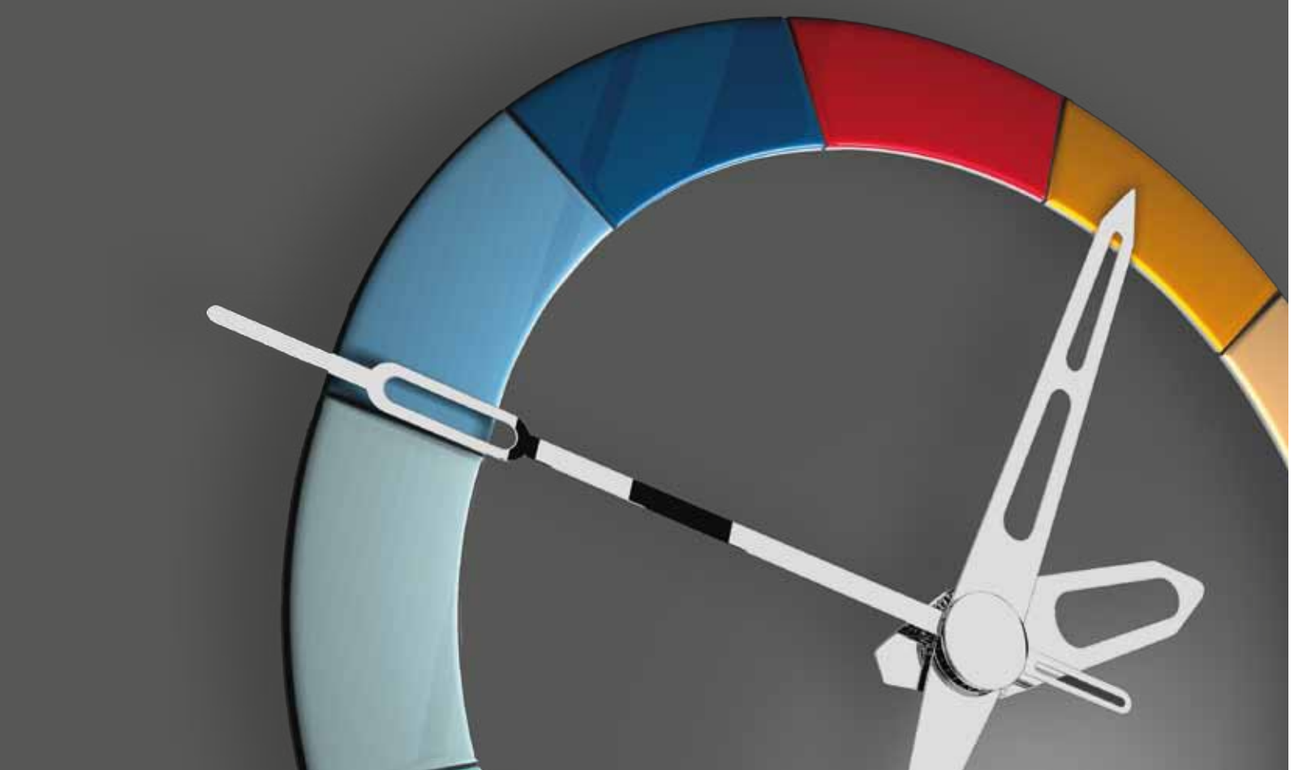
Special corrective mortar intended for replacement of corroded concrete. MO 50 is a self contact material and highly thixotropic (becomes fluid when shaken or stirred and returns to a gel state when allowed to stand). It has good pot life and can be applied on ceilings.

Other important information:

- Shelf life: 6 months – If stored in a dry place
- Pot life: 45 minutes depending on weather
- Compressive strength: min. 50 MPa
- Recommended thickness per layer: 1.5 – 35 mm

RAKO SYSTEM

LEVELLING COMPOUNDS



OV 30

LEVELLING SCREED

MARKING		USAGE (appr.)	PACKAGING pcs/pallet (kg)
OV 30	BC0 080 25 40 J0V	20 kg/m²/10 mm	25 / 1200

OV 30 – CEMENTITIOUS SCREED

INTENDED USE:

Special cement screeds with fibers used for high strength, resistant and variable layer thickness in internal and external environments. For example: pools, balconies, terraces, public showers etc. It can be used as final walking layer.

Other important information:

- Shelf life: 6 months – If stored in a dry place
- Pot life: 1 hour depending on weather
- Traffic ability: Walking after 3 days
- Floor tiling: min. after 14 days
- Compressive strength: min. 30 MPa
- Granularity: 0 – 4 mm
- Recommended thickness per layer: 5 – 100 mm

OV 30 SPEED

LEVELLING SCREED

MARKING		USAGE (appr.)	PACKAGING pcs/pallet (kg)
OV 30 SPEED	BC0 180 25 40 J0V	20 kg/m²/10 mm	25 / 1200

OV 30 SPEED – CEMENTITIOUS SCREED´

INTENDED USE:

Special cement screeds with fibers used for high strength, resistant and variable layer thickness in internal and external environments. For example: pools, balconies, terraces, public showers etc. It can be used as final walking layer.

Other important information:

- Shelf life: 6 months – If stored in a dry place
- Pot life: 30 minutes depending on weather
- Traffic ability: Walking after 3 – 4 hours
- Floor tiling: After 24 hours
- Compressive strength: min. 40 MPa
- Granularity: 0 – 0.4 mm
- Recommended thickness per layer: 5 – 100 mm

OV 40

LEVELLING SCREED

MARKING		USAGE (appr.)	PACKAGING pcs/pallet (kg)
OV 40	BC0 070 25 20 J0V	20 kg/m²/10 mm	25 / 1 200

OV 40 – CEMENTITIOUS SCREED

INTENDED USE:

Special cement screeds with fibers used for high strength, resistant and variable layer thickness in internal and external environments. For example: pools, balconies, terraces, public showers etc. It can be used as final walking layer.

Other important information:

- Shelf life: 6 months – If stored in a dry place
- Pot life: min. 1 hour depending on weather
- Traffic ability: Walking after 3 days
- Floor tiling: After 3 days
- Compressive strength: min. 40 MPa
- Granularity: 0 – 2 mm
- Recommended thickness per layer: 3 – 50 mm

LE 10

LEVELLING SCREED

MARKING		USAGE (appr.)	PACKAGING pcs/pallet (kg)
LE 10	BC5 155 25 07 J0V	1.70 kg/m²/1 mm	25 / 1200

LE 10 – LEVELLING COMPOUND FOR LAYERS BETWEEN 1 – 10 MM

INTENDED USE:

Thixotropic leveling compound used for horizontal (floor and ceiling) and vertical substrates before laying tiles or other floor coverings. It can be applied to concrete or other tiles using the prescribed primer. It can be applied in a single layer between 1 – 10 mm and in local unevenness up to 15 mm thickness in one working step. LE 10 is not intended as a final walking layer.

Other important information:

- Shelf life: 6 months – If stored in a dry place
- Pot life: 1–2 hours depending on weather
- Traffic ability: After 24 hours.
- Compressive strength: min. 6 MPa
- Recommended thickness per layer: 1 – 10 mm

LE 21

LEVELLING SCREED

MARKING		USAGE (appr.)	PACKAGING pcs/pallet (kg)
LE 21	BC0 300 25 04 J0V	1.70 kg/m²/1 mm	25 / 1200

LE 21 – LEVELLING COMPOUND FOR LAYERS BETWEEN 1 – 15 MM

INTENDED USE:

Leveling compound used for horizontal and vertical substrates before laying tiles or other floor coverings. It can be applied to concrete or other tiles using the prescribed primer. It can be applied in a single layer between 1 – 15 mm. LE 21 is not intended as a final walking layer.

Other important information:

- Shelf life: 6 months – If stored in a dry place
- Pot life: 1 hour depending on weather
- Traffic ability: After 24 hours.
- Compressive strength: min. 20 MPa
- Recommended thickness per layer: 1 – 15 mm

LE 20

SELF-LEVELLING COMPOUND

MARKING		USAGE (appr.)	PACKAGING pcs/pallet (kg)
LE 20	BC0 060 25 07 J0V	1.70 kg/m²/1 mm	25 / 1200

LE 20 – SELF LEVELLING SMOOTHING COMPUND FOR LAYERS BETWEEN 3 – 15 MM

INTENDED USE:

Self leveling compound used for leveling substrates before laying tiles or other floor coverings. It can be applied to concrete or other tiles using the prescribed primer. It can be applied in a single layer between 3 – 15 mm and in local unevenness up to 15 mm thickness. The optimal design thickness is 4 mm in an area extending up to 15 square meters. LE 20 is not intended as a final walking layer.

Other important information:

- Shelf life: 6 months – If stored in a dry place
- Pot life: 20 minutes depending on weather
- Traffic ability: After 12 hour walking and after 4 days tiling.
- Compressive strength: min. 20 MPa
- Granularity: 0 – 0.7 mm
- Recommended thickness per layer: 3 – 15 mm

LE 30

SELF-LEVELLING COMPOUND QUICK

MARKING		USAGE (appr.)	PACKAGING pcs/pallet (kg)
LE 30	BC0 050 25 07 J0V	1.70 kg/m²/1 mm	25 / 1200

LE 30 – FAST SETTING SELF LEVELLING COMPOUND FROM 3 TO 15 MM

INTENDED USE:

Self leveling and fast setting compound intended for horizontal substrates before laying tiles or other floor coverings. It can also be used as a final walking layer with a minimum thickness of 6 mm. LE 30 can be applied to concrete or other tiles using the prescribed primer. It can be applied in a single layer between 3 – 15 mm.

Other important information:

- Shelf life: 6 months – If stored in a dry place
- Pot life: 20 minutes depending on weather
- Traffic ability: After 4 to 6 hours.
- Compressive strength: min. 30 MPa
- Recommended thickness per layer: 3 – 15 mm

LE 40 DINO

SELF-LEVELLING COMPOUND, HIGH-STRENGTH

MARKING		USAGE (appr.)	PACKAGING pcs/pallet (kg)
LE 40 DINO	BC0 240 25 07 J0V ✉	1.70 kg/m²/1 mm	25 / 1200

LE 40 DINO – FAST SETTING SELF LEVELLING COMPOUND FROM 4 TO 20 MM

INTENDED USE:

Self leveling and fast setting compound intended for horizontal substrates before laying tiles or other floor coverings. It can also be used as a final walking layer with a minimum thickness of 6 mm. LE 40 DINO can be applied to concrete or other tiles using the prescribed primer. It can be applied in a single layer between 4 – 20 mm.

Other important information:

- Shelf life: 6 months – If stored in a dry place
- Pot life: 20 – 30 minutes depending on weather
- Traffic ability: After 6 to 8 hours.
- Compressive strength: min. 40 MPa
- Recommended thickness per layer: 4 – 20 mm

LE 30 GPS

SELF-LEVELLING COMPOUND

MARKING		USAGE (appr.)	PACKAGING pcs/pallet (kg)
LE 30 GPS	BC0 200 25 07 J0V ✉	1.70 kg/m²/1 mm	25 / 1200

LE 30 GPS – SELF LEVELLING GYPSUM COMPOUND FROM 5 TO 30 MM

INTENDED USE:

Self leveling screed intended for horizontal substrates before laying tiles or other floor coverings. It can cannot be used as a final walking layer. LE 30 GPS can be applied to concrete or other tiles using the prescribed primer. It can be applied in a single layer between 5 – 30 mm.

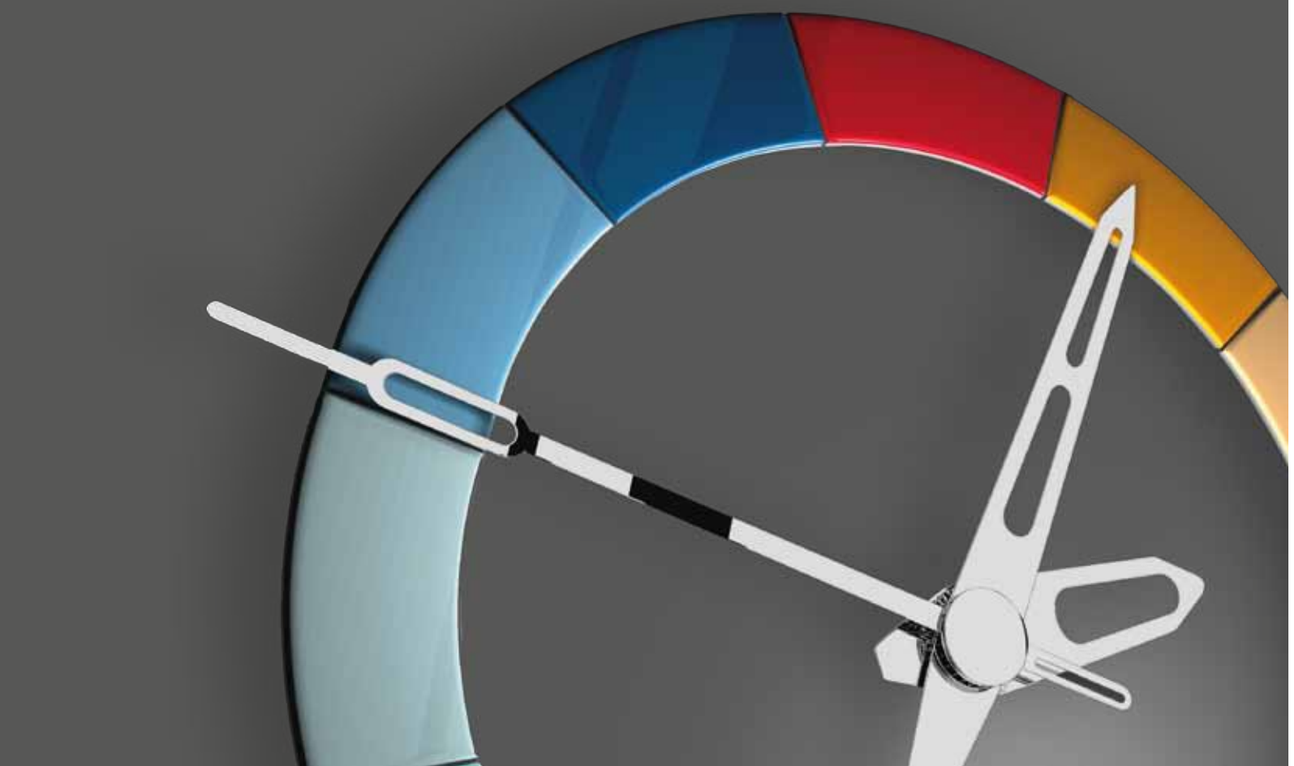
Other important information:

- Shelf life: 6 months – If stored in a dry place
- Pot life: 20 minutes depending on weather
- Traffic ability: After 12 hours.
- Compressive strength: min. 30 MPa
- Recommended thickness per layer: 5 – 30 mm

✉ **goods available to order**

RAKO SYSTEM

WATERPROOFING MATERIALS



SE 1

SINGLE COMPONENT WATERPROOFING COATING

MARKING		USAGE (appr.)	PACKAGING pcs/pallet (kg)
SE 1	BCN I03 08 00 J0V	1.20–1.60 kg/m²/2 layers	8 / 576
	BCN I03 24 00 J0V	1.20–1.60 kg/m²/2 layers	16 / 384

SE 1 – HIGHLY ELASTIC FLUID SEALING FILM FOR DIRECT WATERPROOFING

INTENDED USE:

Waterproofing with easy processing intended for wet areas in internal usage (e.g. bathrooms, showers, kitchens...). It is to be applied horizontally and vertically on cement plaster, concrete, plasterboards... SE 1 creates a substrate for bonding ceramics, natural and engineered stones. For spaces with increased moisture, the floor should be sloped towards a drainer avoiding any possible water retention between the waterproofing and the adhesive/tiles. SE 1 is suitable for areas with under floor heating. It is NOT SUITABLE for areas with high water pressure (e.g. swimming pools, water tanks...) SE 1 should be covered with adequate adhesive and tiles, it is not intended as a final walking layer.

Other important information:

- Shelf life: 12 months – If stored in a dry place
- Gluing: After 24 hours
- Adhesion to substrate: min. 1 MPa
- Relative elongation: min. 35%
- **PROTECT AGAINST FROST!**

SE MACH3

TWO-COMPONENT WATERPROOFING SLURRY

MARKING		USAGE (appr.)	PACKAGING pcs/pallet (kg)
SE MACH3	BCN I13 10 00 J0V	1.30 kg/m²/1 mm	10 / 200
	BCN I13 20 00 J0V	1.30 kg/m²/1 mm	20 / 400

SE MACH3 – TWO-COMPONENT FAST SETTING WATERPROOFING – HIGH WATER PRESSURE

INTENDED USE:

Extremely fast setting waterproofing with easy processing intended for high water pressure in internal and external environments (e.g. foundations, water tanks, swimming pools, terraces, aqua parks...). It is to be applied horizontally and vertically on cement plaster, concrete, plasterboards... SE MACH3 creates a substrate for bonding ceramics, natural and engineered stones. When needed (e.g. balconies), the floor should be sloped towards a drainer avoiding any possible water retention between the waterproofing and the adhesive/tiles. SE MACH3 is suitable for areas with under floor heating. It should be covered with adequate adhesive and tiles; it is not intended as a final walking layer.

Other important information:

- Shelf life: 12 months – If stored in a dry place
- Pot life: 45 minutes
- Traffic ability: After 4 hours
- Gluing: After 4 hours usual and 3 days! for pools/water tanks
- **PROTECT AGAINST FROST!**

SE 4

TWO-COMPONENT EPOXY COATING

MARKING		USAGE (appr.)	PACKAGING pcs/pallet (kg)
SE 4	BCN P07 01 00 J0Z	1.20 kg/m²/1 mm tl.	1
	BCN P07 05 00 J0Z ✉	1.20 kg/m²/1 mm tl.	5

SE 4 – TWO-COMPONENT EPOXY CHEMICALLY RESISTANT INSULATING COATING

INTENDED USE:

Two component epoxy stopper used for insulating base structures directly under the ceramic layer in a chemically aggressive environment. It is to be applied with a brush or rubber spatula in layers from 1 to 2 mm. Before installing tiles above it, SE 4 needs to be backfilled with silica sand or epoxy adhesive AD 321 must be used. If using silica sand in the ratio of 1:5 – SE 4 can be used as chemically resistant leveling cement for floors. SE 4 can also have another usage and being a grout resin for bridging cracks up to 0.2 mm.

Other important information:

- Shelf life: 12 months – If stored in a dry place
- Pot life: 35 minutes
- Traffic ability: After 12 hours
- Working load: After 3 days
- **PROTECT AGAINST FROST!**

✉ **goods available to order**

SE 5

SEALING TAPE

MARKING			PACKAGING pcs/pallet (kg)
SE 5	BZS ASH 10 08 J0Z	width 80 mm, length 10 m	10 m
	BZS ASH 10 10 J0Z	width 100 mm, length 10 m	10 m
	BZS ASH 10 12 J0Z	width 120 mm, length 10 m	10 m
	BZS ASH 10 15 J0Z	width 150 mm, length 10 m	10 m
	BZS ASH 10 99 J0Z	width 1000 mm, length 10 m	10 m
	BZS ASH 50 08 J0Z	width 80 mm, length 50 m	50 m
	BZS ASH 50 10 J0Z	width 100 mm, length 50 m	50 m
	BZS ASH 50 12 J0Z	width 120 mm, length 50 m	50 m
	BZS ASH 50 15 J0Z	width 150 mm, length 50 m	50 m
	BZS ASH 00 00 J2Z	internal corner	pcs
	BZS ASH 00 00 J1Z	external corner	pcs
	BZS ASM 00 43 J0Z	packing flange 430/430 mm	pcs

SE 5 – WATERPROOF ELASTIC SEALING STRIPS

INTENDED USE:

Double sided waterproof sealing strips intended for bridging and sealing of dilatation joints, pipe passages and connections between floors, walls and corners. SE 5 can be used for low or high water pressure in internal and external usage spaces. The product should be covered with adequate adhesive and tiles, it is not intended as a final walking layer.

Other important information:

- Shelf life: No period – If stored in a dry place

SE PLANO

PE FOIL INSULATION

MARKING		USAGE (appr.)	PACKAGING pcs/pallet (kg)
SE plano	BZS ASF 10 99 J0Z	1.1 m^2/m^2	10 bm
	BZS ASF 30 99 J0Z	1.1 m^2/m^2	30 bm

SE PLANO – DOUBLE SIDED BACKED POLYETHYLENE INSULATING FOIL – 1000 MM WIDTH

INTENDED USE:

Double sided insulating foil intended for bridging cracks directly under tiles. It is suitable for sealing of structures in interior and exterior, in particular, on floor surfaces in humid and permanently wet areas with a great risk of creation of cracks. The assembly is performed using the contact cement PE 204. Joints are to be overlapped at a distance of 50 to 100 mm and glued using the insulating stopper SE 6 or SE MACH3.

Other important information:

- Shelf life: No period – If stored in a dry place
- Gluing: after 24 hours

SE 6

SINGLE-COMPONENT WATERPROOFING SLURRY

MARKING		USAGE (appr.)	PACKAGING pcs/pallet (kg)
SE 6	BCN I05 20 00 J0V	1.5 kg/m^2/1 mm	20 / 960

SE 6 – FLEXIBLE SINGLE COMPONENT SILICATE DISPERSIVE WATERPROOFING

INTENDED USE:

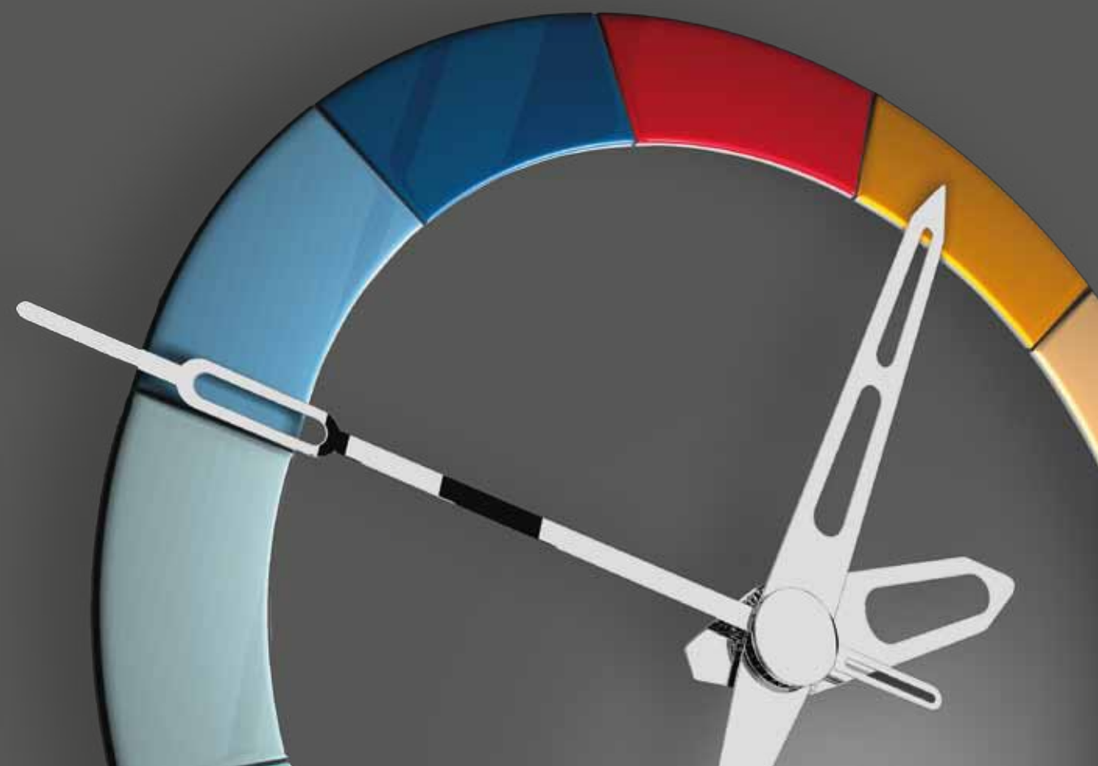
Waterproofing with easy processing intended for high water pressure in internal and external environments (e.g. foundations, water tanks, swimming pools, terraces, aqua parks...). It is to be applied horizontally and vertically on cement plaster, concrete, plasterboards... SE 6 creates a substrate for bonding ceramics, natural and engineered stones. When need (e.g. balconies), the floor should be sloped towards a drainer avoiding any possible water retention between the waterproofing and the adhesive/tiles. SE 6 is suitable for areas with under floor heating. SE 6 should be covered with adequate adhesive and tiles; it is not intended as a final walking layer.

Other important information:

- Shelf life: 6 moths – If stored in a dry place
- Pot life: 1 hour
- Gluing: After 24 hours usual and 7 days for pools/water tanks
- Adhesion to substrate: min. 1 MPa
- Relative elongation: min. 13%

RAKO SYSTEM

ADHESIVES



AD 501

ADHESIVE FOR WALL TILES – STANDARD

MARKING		USAGE comb height: 8 mm	PACKAGING pcs/pallet (kg)
AD 501	BC5 015 25 07 J0V	appr. 4.20 kg/m²	25 / 1 200

AD 501 – ADHESIVE CLASS C1

INTENDED USE:

Standard adhesive intended for gluing highly absorbent ceramic or natural stone (not engineered stones) horizontally and vertically in internal environments. AD 501 can be used in wet areas such as bathrooms and kitchens. It cannot be used in areas under thermal stress such as floor heating nor areas with heavy loads such as cars or traversing forklifts for example. Furthermore, it is not intended for high water pressure areas such as water tanks or pools.

Other important information:

- Shelf life: 12 months – If stored in a dry place
- Open time: min. 20 minutes
- Pot life: 2 hours depending on weather
- Grouting: Walls after 1 day and floors after 3 days depending on weather
- Traffic ability: Low traffic ability after 2 days and full traffic ability after 7 days
- Color: Grey
- Granularity: 0 – 0.7 mm

AD 505

ADHESIVE FOR WALL TILES

MARKING		USAGE comb height: 8 mm	PACKAGING pcs/pallet (kg)
AD 505	BC5 025 25 07 J0V	appr. 4.20 kg/m²	25 / 1 200

AD 505 – ADHESIVE CLASS C1T

INTENDED USE:

Frost resistant modified adhesive intended for gluing medium and highly absorbent ceramic or natural stone (not engineered stones) horizontally and vertically in internal environments. AD 505 can be used in wet areas such as bathrooms and kitchens. It cannot be used in areas under thermal stress such as floor heating nor areas with heavy loads such as cars or traversing forklifts for example. Furthermore, it is not intended for high water pressure areas such as water tanks or pools.

Other important information:

- Shelf life: 12 months – If stored in a dry place
- Open time: min. 25 minutes
- Pot life: 3 – 4 hours depending on weather
- Grouting: Walls after 1 day and floors after 3 days depending on weather
- Traffic ability: Low traffic ability after 2 days and full traffic ability after 7 days
- Color: Grey
- Granularity: 0 – 0.7 mm

AD 510 PLUS

ADHESIVE – INTERIOR

MARKING		USAGE comb height: 8 mm	PACKAGING pcs/pallet (kg)
AD 510 PLUS	BC5 035 05 04 J0V	appr. 4.20 kg/m²	5 / 1000
	BC5 035 25 04 J0V	appr. 4.20 kg/m²	25 / 1200

AD 510 PLUS – ADHESIVE CLASS C1TE

INTENDED USE:

Frost resistant and modified adhesive intended for gluing all types of ceramic or natural stone (not engineered stones) horizontally and vertically in internal environments. AD 510 PLUS can be used in wet areas such as bathrooms and kitchens in addition to areas under thermal stress such as floor heating. It cannot be used for high water pressure areas such as water tanks or pools neither areas with heavy loads such as cars or traversing forklifts for example.

Other important information:

- Shelf life: 12 months – If stored in a dry place
- Open time: min. 30 minutes
- Pot life: 3 – 4 hours depending on weather
- Grouting: Walls after 1 day and floors after 3 days depending on weather
- Traffic ability: Low traffic ability after 2 days and full traffic ability after 7 days
- Color: Grey
- Granularity: 0 – 0.4 mm

AD 520

ADHESIVE

MARKING		USAGE comb height: 8 mm	PACKAGING pcs/pallet (kg)
AD 520	BC5 075 25 07 J0V	appr. 4.20 kg/m²	25 / 1200

AD 520 – ADHESIVE CLASS C2T

INTENDED USE:

Frost resistant, highly modified adhesive intended for gluing all types of ceramic and natural horizontally and vertically in internal and external environments. AD 520 can be used in wet areas such as bathrooms and kitchens in addition to areas under thermal stress such as floor heating. It is NOT suitable for high water pressure areas such as water tanks or pools and areas with heavy loads such as cars or traversing forklifts for example.

Other important information:

- Shelf life: 12 months – If stored in a dry place
- Open time: min. 20 minutes
- Pot life: 3 – 4 hours depending on weather
- Grouting: Walls after 1 day and floors after 3 days depending on weather
- Traffic ability: Low traffic ability after 2 days and full traffic ability after 7 days
- Color: Grey
- Granularity: 0 – 0.7 mm

AD 530

PROFI FLEXIBLE ADHESIVE

MARKING		USAGE comb height: 8 mm	PACKAGING pcs/pallet (kg)
AD 530	BC5 045 05 07 J0V	appr. 4.20 kg/m²	5 / 1000
	BC5 045 25 07 J0V	appr. 4.20 kg/m²	25 / 1 200

AD 530 – ADHESIVE CLASS C2TES1

INTENDED USE:

Frost resistant, highly flexible and modified adhesive intended for gluing all types of ceramic, natural stone and specifically engineered stones horizontally and vertically in internal and external environments. AD 530 can be used in wet areas such as bathrooms and kitchens in addition to areas under thermal stress such as floor heating. It is also suitable for high water pressure areas such as water tanks or pools and areas with heavy loads such as cars or traversing forklifts for example.

Other important information:

- Shelf life: 12 months – If stored in a dry place
- Open time: min. 30 minutes
- Pot life: 3 – 4 hours depending on weather
- Grouting: Walls after 1 day and floors after 3 days depending on weather
- Traffic ability: Low traffic ability after 2 days and full traffic ability after 7 days
- Color: Grey
- Granularity: 0 – 0.7 mm

AD 540

QUICK-LIQUID ADHESIVE

MARKING		USAGE comb height: 16 mm	PACKAGING pcs/pallet (kg)
AD 540	BC5 065 25 12 J0V	appr. 8.7 kg/m²	25 / 1200

AD 540 – ADHESIVE CLASS C2FE

INTENDED USE:

Fast setting and flowing adhesive with 100% wet ability for gluing of all large format tiles in internal and external environment. It is intended for gluing all types of ceramic or natural stone (not engineered stones) horizontally and vertically. AD 540 can be used in wet areas such as bathrooms and kitchens in addition to areas under thermal stress such as floor heating and areas with heavy loads such as cars or traversing forklifts for example. It cannot be used for high water pressure areas such as water tanks or pools. AD 540 is characterized for bridging of cracks and gluing on difficult bases.

Other important information:

- Shelf life: 12 months – If stored in a dry place
- Open time: min. 30 minutes
- Pot life: 60 minutes depending on weather
- Grouting: After 6 hours
- Traffic ability: Low traffic ability after 6 hours and full traffic ability after 3 days
- Color: Grey
- Granularity: 0 – 1.2 mm

AD 570

HYPERFLEXIBLE ADHESIVE

MARKING		USAGE comb height: 8 mm	PACKAGING pcs/pallet (kg)
AD 570	BC5 255 25 07 J0V	appr. 4.20 kg/m²	25 / 1200

AD 570 – ADHESIVE CLASS C2TES2

INTENDED USE:

Frost resistant, **hyper flexible** and modified adhesive intended for gluing all types of ceramic, natural stone and specifically engineered stones horizontally and vertically in internal and external environments. AD570 can be used in wet areas such as bathrooms and kitchens in addition to areas under thermal stress such as floor heating. It is also suitable for high water pressure areas such as water tanks or pools and areas with heavy loads such as cars or traversing forklifts for example.

Other important information:

- Shelf life: 12 months – If stored in a dry place
- Open time: min. 30 minutes
- Pot life: 3 to 4 hours depending on weather
- Grouting: Walls after 1 day and floors after 3 days depending on weather
- Traffic ability: Low traffic ability after 2 days and full traffic ability after 7 days
- Color: Grey
- Granularity: 0 – 0.7 mm

AD 509 PLUS

WHITE MODIFIED ADHESIVE

MARKING		USAGE comb height: 4 mm	PACKAGING pcs/pallet (kg)
AD 509 PLUS	BC5 035 25 04 JBV	appr. 2.10 kg/m²	25 / 1200

AD 509 PLUS – ADHESIVE CLASS C1TE

INTENDED USE:

Frost resistant and modified adhesive intended for gluing all types of ceramic or natural stone (not engineered stones) horizontally and vertically in internal environments. AD 509 PLUS can be used in wet areas such as bathrooms and kitchens in addition to areas under thermal stress such as floor heating. It cannot be used for high water pressure areas such as water tanks or pools neither areas with heavy loads such as cars or traversing forklifts for example.

Other important information:

- Shelf life: 12 months – If stored in a dry place
- Open time: min. 30 minutes
- Pot life: 3 – 4 hours depending on weather
- Grouting: Walls after 1 day and floors after 3 days depending on weather
- Traffic ability: Low traffic ability after 2 days and full traffic ability after 7 days
- Color: White
- Granularity: 0 – 0.4 mm

AD 550

WHITE FLEXIBLE ADHESIVE

MARKING		USAGE comb height: 4 mm	PACKAGING pcs/pallet (kg)
AD 550	BC5 045 05 04 JBV	appr. 2.10 kg/m²	5 / 1000
	BC5 045 25 04 JBV	appr. 2.10 kg/m²	25 / 1200

AD 550 – ADHESIVE CLASS C2TES1

INTENDED USE:

Frost resistant, highly flexible and modified adhesive intended for gluing all types of ceramic, natural stone and specifically engineered stones horizontally and vertically in internal and external environments. AD 550 can be used in wet areas such as bathrooms and kitchens in addition to areas under thermal stress such as floor heating. It is also suitable for high water pressure areas such as water tanks or pools and areas with heavy loads such as cars or traversing forklifts for example.

Other important information:

- Shelf life: 12 months – If stored in a dry place
- Open time: min. 30 minutes
- Pot life: 3 – 4 hours depending on weather
- Grouting: Walls after 1 day and floors after 3 days depending on weather
- Traffic ability: Low traffic ability after 2 days and full traffic ability after 7 days
- Color: White
- Granularity: 0 – 0.4 mm

AD 580

QUICK ADHESIVE – INTERIOR

MARKING		USAGE comb height: 8 mm	PACKAGING pcs/pallet (kg)
AD 580	BC5 105 25 07 J0V	appr. 4.20 kg/m²	25 / 1200

AD 580 PLUS – ADHESIVE CLASS C1FT

INTENDED USE:

Fast setting frost resistant and modified adhesive intended for gluing all types of ceramic or natural stone (not engineered stones) horizontally and vertically in internal environments. AD 580 can be used in wet areas such as bathrooms and kitchens in addition to areas under thermal stress such as floor heating. It cannot be used for high water pressure areas such as water tanks or pools neither areas with heavy loads such as cars or traversing forklifts for example.

Other important information:

- Shelf life: 6 months – If stored in a dry place
- Open time: min. 10 minutes
- Pot life: max. 15 minutes depending on weather
- Grouting: After 4 hours
- Traffic ability: Low traffic ability after 4 hours and full traffic ability after 24 hours
- Color: Grey
- Granularity: 0 – 0.7 mm

AD 590

QUICK-FLEXIBLE ADHESIVE

MARKING		USAGE comb height: 8 mm	PACKAGING pcs/pallet (kg)
AD 590	BC5 285 25 07 J0V	appr. 4.20 kg/m²	25 / 1200

AD 590 – ADHESIVE CLASS C2FTES1

INTENDED USE:

Frost resistant, quick setting, flexible and modified adhesive intended for gluing all types of ceramic, natural stone – NOT engineered stone horizontally and vertically in internal and external environments. AD 590 is suitable for assembly of SDI (sound insulating panels). It is also suitable for gluing wood, wood particle boards and cement particle boards provided they are coated with proper CP 203 primer.

Other important information:

- Shelf life: 12 months – If stored in a dry place
- Open time: max. 40 minutes
- Pot life: 40 minutes depending on weather
- Grouting: Walls after 1 day and floors after 3 days depending on weather
- Traffic ability: 4 hours
- Color: Grey
- Granularity: 0 – 0.4 mm

AD 600

QUICK- HYPERFLEXIBLE ADHESIVE

MARKING		USAGE comb height: 8 mm	PACKAGING pcs/pallet (kg)
AD 600	BC5 295 25 07 J0V	appr. 4.20 kg/m²	25 / 1200

AD 600 – ADHESIVE CLASS C2FTS2

INTENDED USE:

Fast setting, frost resistant, hyper-flexible and highly improved adhesive intended for gluing all types of ceramic, natural stone and specifically engineered stones horizontally and vertically in internal and external environments. AD 600 can be used in wet areas such as bathrooms and kitchens in addition to areas under thermal stress such as floor heating. It is also suitable for high water pressure areas such as water tanks or pools and areas with heavy loads such as cars or traversing forklifts for example.

Other important information:

- Shelf life: 12 months – If stored in a dry place
- Open time: 15 minutes depending on weather
- Grouting: After 4 hours
- Traffic ability: Low traffic ability after 4 hours and full traffic ability after 24 hours
- Color: Grey
- Granularity: 0 – 0.7 mm

ADHESIVES

AD 321

TWO-COMPONENT EPOXY ADHESIVE

MARKING		USAGE comb height: 8 mm	PACKAGING pcs/pallet (kg)
AD 321	BC5 305 05 00 J0Z	appr. 3.00 kg/m²	5 / 300

AD 321 – ADHESIVE CLASS R2T

INTENDED USE:

A two component, frost resistant epoxy adhesive intended to be used for floor and wall tiles in internal and external environments. It can be used for ceramic, natural and engineered stones. AD 321 is ideal for food and chemical industries, laboratories, pools (including thermal with salt water). AD 321 can be used for leveling surfaces by adding up to 30% of its weight with silica sand. The adhesive is stable, waterproof, resistant to aggressive water and ageing, exhibits a high initial adhesion, resistant to saponification, splitting, alkali and diluted inorganic and organic acids.

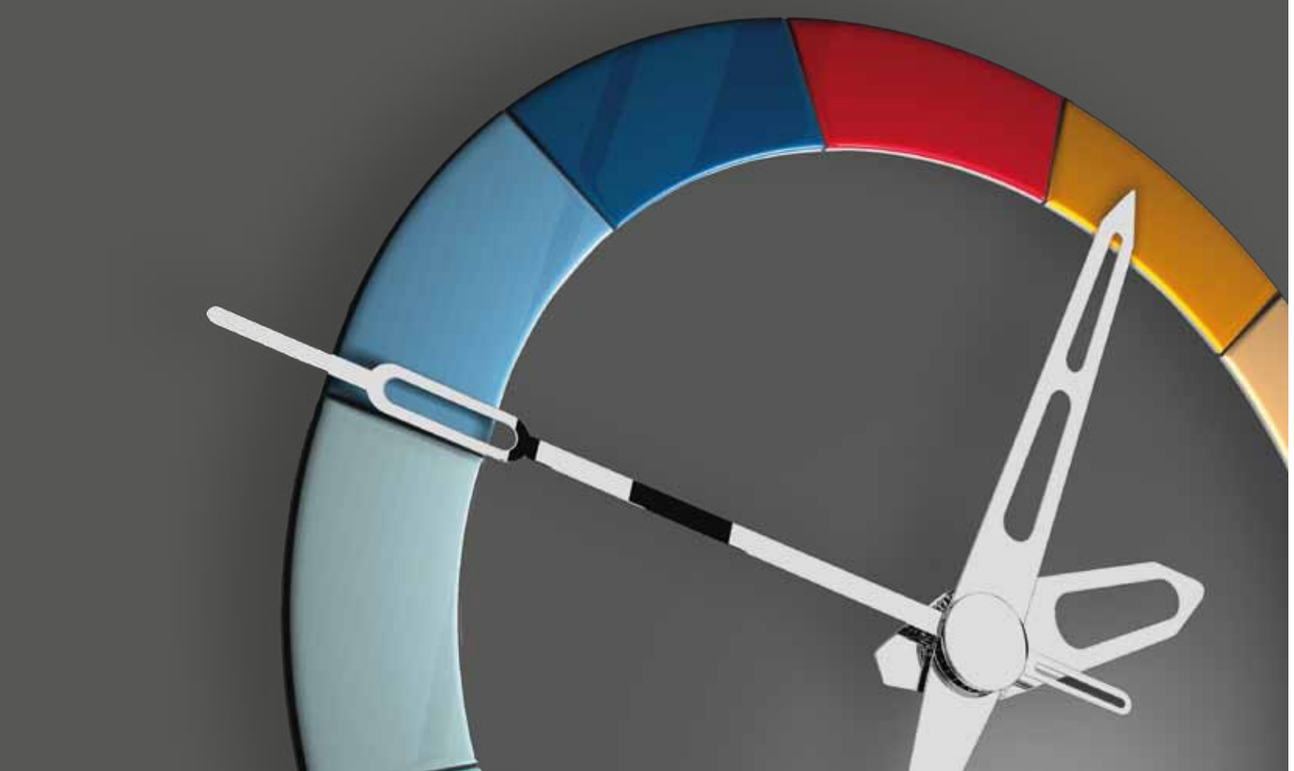
Other important information:

- Shelf life: 12 months – If stored in a dry place
- Open time: 30 minutes depending on weather
- Grouting: After 24 hours
- Traffic ability: 16 hours
- Resistance to temperatures: from -25 °C to +80 °C
- Chemical load: After 7 days
- Note: High temperatures accelerate whereas low temperatures decelerate the setting process
- **PROTECT AGAINST FROST!**

goods available to order

RAKO SYSTEM

GROUT



MARKING			USAGE* (appr)	PACKAGING pcs/pallet (kg)
GF DRY 129	black	BC9 079 05 BC JCV	0.3-0.8 kg/m²	5 / 960
GF DRY 123	anthracite	BC9 079 02 BN JCV	0.3-0.8 kg/m²	2 / 960
		BC9 079 05 BN JCV	0.3-0.8 kg/m²	5 / 960
GF DRY 122	grey	BC9 079 02 A0 J0V	0.3-0.8 kg/m²	2 / 960
		BC9 079 05 A0 J0V	0.3-0.8 kg/m²	5 / 960
		BC9 079 20 A0 J0V	0.3-0.8 kg/m²	20 / 960
GF DRY 121	manhattan	BC9 079 02 BE JCV	0.3-0.8 kg/m²	2 / 960
		BC9 079 05 BE JCV	0.3-0.8 kg/m²	5 / 960
		BC9 079 20 BE JCV	0.3-0.8 kg/m²	20 / 960
GF DRY 120	light grey	BC9 079 02 BA JCV	0.3-0.8 kg/m²	2 / 960
		BC9 079 05 BA JCV	0.3-0.8 kg/m²	5 / 960
GF DRY 100	white	BC9 079 02 BB JBV	0.3-0.8 kg/m²	2 / 960
		BC9 079 05 BB JBV	0.3-0.8 kg/m²	5 / 960
		BC9 079 20 BB JBV	0.3-0.8 kg/m²	20 / 960
GF DRY 131	jasmine	BC9 079 02 AJ JCV	0.3-0.8 kg/m²	2 / 960
		BC9 079 05 AJ JCV	0.3-0.8 kg/m²	5 / 960
GF DRY 132	bahama	BC9 079 02 AF JCV	0.3-0.8 kg/m²	2 / 960
		BC9 079 05 AF JCV	0.3-0.8 kg/m²	5 / 960
		BC9 079 20 AF JCV	0.3-0.8 kg/m²	20 / 960
GF DRY 133	anemone	BC9 079 02 AS JCV	0.3-0.8 kg/m²	2 / 960
		BC9 079 05 AS JCV	0.3-0.8 kg/m²	5 / 960
GF DRY 134	caramel	BC9 079 02 AI JCV	0.3-0.8 kg/m²	2 / 960
		BC9 079 05 AI JCV	0.3-0.8 kg/m²	5 / 960
GF DRY 139	dark brown	BC9 079 05 AT JCV	0.3-0.8 kg/m²	5 / 960
GF DRY 135	brown	BC9 079 02 BH JCV	0.3-0.8 kg/m²	2 / 960
		BC9 079 05 BH JCV	0.3-0.8 kg/m²	5 / 960
GF DRY 149	red	BC9 079 05 AV JCV	0.3-0.8 kg/m²	5 / 960
GF DRY 145	brick	BC9 079 05 CG JCV	0.3-0.8 kg/m²	5 / 960
GF DRY 144	orange	BC9 079 05 CI JCV	0.3-0.8 kg/m²	5 / 960
GF DRY 162	dark yellow	BC9 079 05 CR JCV	0.3-0.8 kg/m²	5 / 960
GF DRY 163	yellow	BC9 079 05 CT JCV	0.3-0.8 kg/m²	5 / 960
GF DRY 164	light yellow	BC9 079 05 CS JCV	0.3-0.8 kg/m²	5 / 960
GF DRY 180	light green	BC9 079 05 CP JCV	0.3-0.8 kg/m²	5 / 960
GF DRY 181	green	BC9 079 05 CL JCV	0.3-0.8 kg/m²	5 / 960
GF DRY 115	turquoise	BC9 079 05 AZ JCV	0.3-0.8 kg/m²	5 / 960
GF DRY 113	crocus	BC9 079 05 AK JCV	0.3-0.8 kg/m²	5 / 960
GF DRY 165	light blue	BC9 079 05 BD JCV	0.3-0.8 kg/m²	5 / 960
GF DRY 119	dark blue	BC9 079 05 AM JCV	0.3-0.8 kg/m²	5 / 960

GF
dry-effect

FLEXIBLE WATER REPELLENT GROUTING MATERIAL

GF – DRY EFFECT – CEMENTITIOUS GROUT CLASS CG2WA

INTENDED USE:

Flexible and highly water resistant grout for all types of wall and floor tiles which can be used for internal or external environments. GF grout is ideal for bathrooms, kitchen, balconies and public spaces; it eliminates clogging thus improving the hygiene of the area and the tiles. It can also be used for areas with under floor heating.

Other important information:

- Shelf life: 12 months – If stored in a dry place
- Pot life: 2 hours depending on weather
- Traffic ability: After 24 hours
- Working load: After 7 days
- Compressive strength: min. 15 MPa
- Granularity: 0 – 0.3 mm
- Recommended thickness of joint: 2 – 20 mm

DRY EFFECT **„DRY EFFECT" – moisture-proof declaration**

** Usage depends on the joint width and tile dimensions*

GF BIO

dry-effect, bio-effect

FLEXIBLE WATER REPELLENT GROUTING MATERIAL WITH BIOCIDES

MARKING		USAGE* (appr.)	PACKAGING pcs/pallet (kg)
GF BIO 123 anthracite	BC9 179 05 BN JCV	0,30–0,80 kg/m²	5 / 360
GF BIO 122 grey	BC9 179 05 A0 J0V	0,30–0,80 kg/m²	5 / 360
GF BIO 121 manhattan	BC9 179 05 BE JCV	0,30–0,80 kg/m²	5 / 360
GF BIO 120 light grey	BC9 179 05 BA JCV	0,30–0,80 kg/m²	5 / 360
GF BIO 100 white	BC9 179 05 BB JBV	0,30–0,80 kg/m²	5 / 360
GF BIO 131 jasmine	BC9 179 05 AJ JCV	0,30–0,80 kg/m²	5 / 360
GF BIO 132 bahama	BC9 179 05 AF JCV	0,30–0,80 kg/m²	5 / 360
GF BIO 133 anemone	BC9 179 05 AS JCV	0,30–0,80 kg/m²	5 / 360
GF BIO 134 caramel	BC9 179 05 AI JCV	0,30–0,80 kg/m²	5 / 360
GF BIO 139 dark brown	BC9 179 05 AT JCV	0,30–0,80 kg/m²	5 / 360
GF BIO 149 red	BC9 179 05 AV JCV	0,30–0,80 kg/m²	5 / 360
GF BIO 144 orange	BC9 179 05 CI JCV	0,30–0,80 kg/m²	5 / 360

GF BIO – FLEXIBLE WATER REPELLING JOINTING MATERIAL WITH BIOCIDES CLASS CG2WA

INTENDED USE:

Flexible and water resistant grout for all types of wall and floor tiles which can be used for internal or external environments. GF grout is ideal for bathrooms, kitchen, balconies and public spaces; Biocides support immunity against bacteria and fungus. It can also be used for areas with under floor heating.

Other important information:

- Shelf life: 12 months – If stored in a dry place
- Pot life: max. 1 hour depending on weather
- Traffic ability: After 4 hours
- Working load: After 3 days
- Compressive strength: min. 15 MPas
- Granularity: 0 – 0.3 mm
- Recommended thickness of joint: 2 – 20 mm

DRY EFFECT „DRY EFFECT" – moisture-proof declaration

BIO EFFECT „BIO EFFECT" – contains biocides

GFS

hydrophobic and waterproof

SUPER-FLEXIBLE GROUTING MATERIAL

MARKING		USAGE* (appr.)	PACKAGING pcs/pallet (kg)
GFS 123 anthracite	BC9 069 05 BN JCV	0,30–0,80 kg/m²	5 / 960
GFS 122 grey	BC9 069 05 A0 J0V	0,30–0,80 kg/m²	5 / 960
	BC9 069 20 A0 J0V	0,30–0,80 kg/m²	20 / 960
GFS 121 manhattan	BC9 069 05 BE JCV	0,30–0,80 kg/m²	5 / 960
	BC9 069 20 BE JCV	0,30–0,80 kg/m²	20 / 960

GFS – HIGHLY FLEXIBLE QUICK SETTING JOINTING MATERIAL CLASS CG2WA S1

INTENDED USE:

GFS is a jointing material with an increased ability of lateral deformation in internal and external environments. Hydrophobic additives ensure 100% water tightness. It is specifically designed for jointing of SDI panels. It is also ideal for large areas such as business centers, restaurants, theatres and public spaces.

Other important information:

- Shelf life: 12 months – If stored in a dry place
- Pot life: 45 minutes depending on weather
- Traffic ability: After 3 hours
- Working load: After 24 hours
- Recommended thickness of joint: 2 – 20 mm

DRY EFFECT „DRY EFFECT" – moisture-proof declaration

* Usage depends on the joint width and tile dimensions

GW

for wide joints

COARSE-GRAIN GROUT MATERIAL

MARKING		USAGE* (appr.)	PACKAGING pcs/pallet (kg)
GW 123 anthracite	BC9 039 05 BN JCV	1–1,80 kg/m²	5 / 960
GW 122 grey	BC9 039 05 A0 J0V	1–1,80 kg/m²	5 / 960
	BC9 039 20 A0 J0V	1–1,80 kg/m²	20 / 960
GW 121 manhattan	BC9 039 05 BE JCV	1–1,80 kg/m²	5 / 960
GW 132 bahama	BC9 039 05 AF JCV	1–1,80 kg/m²	5 / 960

GW – MATERIAL FOR JOINTS WITH WIDDHT RANGING FROM 5 TO 30 MM CLASS CG2WA

INTENDED USE:

GW is a jointing material intended for wall and floor tiles in internal and external environments. It has the ability to function within the width of 5 to 30 mm.

Other important information:

- Shelf life: 12 months – If stored in a dry place
- Pot life: 2 hours depending on weather
- Traffic ability: After 24 hours
- Working load: After 7 days
- Recommended thickness of joint: 5 – 30 mm

GE

epoxy

EPOXY GROUTING MATERIAL

MARKING		USAGE* (appr.)	PACKAGING pcs/pallet (kg)
GE 122 grey	BC9 089 05 A0 J0Z ✉	1–1,80 kg/m²	5 / 300
	BC9 089 10 A0 J0Z ✉	1–1,80 kg/m²	10 / 450
GE 100 white	BC9 089 05 BB JBZ ✉	1–1,80 kg/m²	5 / 300
	BC9 089 10 BB JBZ ✉	1–1,80 kg/m²	10 / 450

GE – EPOXY – TWO COMPONENT EPOXY JOINTING MATERIAL CLASS RG2

INTENDED USE:

Jointing material made from thermosetting resins. It is waterproof and can be used in internal and external environments. GE EPOXY is ideal for swimming pools, balconies, terraces, operation halls, hospitals, laboratories using chemicals, automobile services, WC, shower boxes... It is resistant to chemicals including acids, aggressive water, fuels, and oils. **IT IS APPROVED** for direct contact with food and drinking water and has excellent wash ability.

Other important information:

- Shelf life: 12 months – If stored in a dry place
- Usability time: 45 minutes at 20° Celsius and 15 minutes above 25° Celsius
- Traffic ability: After 24 hours – Full load after 7 days
- Compressive strength: min. 45 MPa
- Recommended thickness of joint: 3 – 15 mm
- **PROTECT AGAINST FROST!**

* Usage depends on the joint width and tile dimensions

✉ goods available to order

GE EASY

epoxy

EPOXY GROUTING MATERIAL

MARKING		USAGE* (appr.)	PACKAGING pcs/pallet (kg)
GE EASY 122 grey	BC9 119 05 A0 J0Z	1–1,80 kg/m²	5 / 300
	BC9 119 10 A0 J0Z	1–1,80 kg/m²	10 / 450
GE EASY 121 manhattan	BC9 119 05 BE JCZ	1–1,80 kg/m²	5 / 300
	BC9 119 10 BE JCZ	1–1,80 kg/m²	10 / 450
GE EASY 100 white	BC9 119 05 BB JBZ	1–1,80 kg/m²	5 / 300
	BC9 119 10 BB JBZ	1–1,80 kg/m²	10 / 450
GE EASY 132 bahama	BC9 119 05 AF JCZ	1–1,80 kg/m²	5 / 300
	BC9 119 10 AF JCZ	1–1,80 kg/m²	10 / 450
GE EASY 115 turquoise	BC9 119 05 AZ JCZ	1–1,80 kg/m²	5 / 300
	BC9 119 10 AZ JCZ	1–1,80 kg/m²	10 / 450
GE EASY 165 light blue	BC9 119 05 BD JCZ	1–1,80 kg/m²	5 / 300
	BC9 119 10 BD JCZ	1–1,80 kg/m²	10 / 450
GE EASY 119 dark blue	BC9 119 05 AM JCZ	1–1,80 kg/m²	5 / 300
	BC9 119 10 AM JCZ	1–1,80 kg/m²	10 / 450

GE EASY – TWO COMPONENT EPOXY JOINTING MATERIAL CLASS RG2

INTENDED USE:

Jointing material made from thermosetting resins. It is waterproof and can be used in internal and external environments. GE EASY is ideal for swimming pools, balconies, terraces, operation halls, hospitals, laboratories using chemicals, automobile services, WC, shower boxes... It is resistant to chemicals including acids, aggressive water, fuels, and oils. **IT IS APPROVED** for direct contact with food and drinking water and has excellent wash ability.

Other important information:

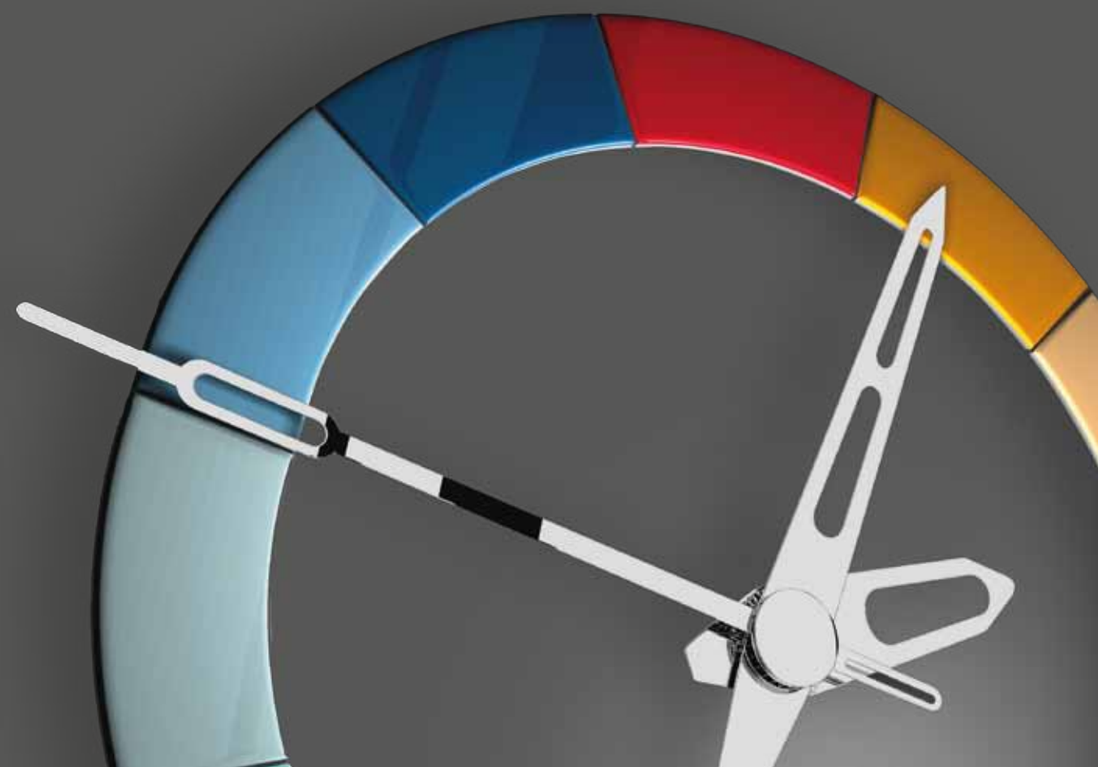
- Shelf life: 12 months – If stored in a dry place
- Usability time: 45 minutes at 20° Celsius and 15 minutes above 25° Celsius
- Traffic ability: After 24 hours – Full load after 7 days
- Compressive strength: min. 45 MPa
- Recommended thickness of joint: 3 – 15 mm
- **PROTECT AGAINST FROST!**

** Usage depends on the joint width and tile dimensions*

goods available to order

RAKO SYSTEM

SILICONES



SI
sanitary

SANITARY SILICONE

MARKING		USAGE (appr.) (1 cartouche/appr. common metre)	PACKAGING ml/pcs in pack
SI 129 black	BZS KSS 03 BC JCZ	6 – 12	310 / 15
SI 123 anthracite	BZS KSS 03 BN JCZ	6 – 12	310 / 15
SI 122 grey	BZS KSS 03 A0 J0Z	6 – 12	310 / 15
SI 121 manhattan	BZS KSS 03 BE JCZ	6 – 12	310 / 15
SI 120 light grey	BZS KSS 03 BA JCZ	6 – 12	310 / 15
SI 199 transparent	BZS KSS 03 CW JCZ	6 – 12	310 / 15
SI 100 white	BZS KSS 03 BB JBZ	6 – 12	310 / 15
SI 131 jasmine	BZS KSS 03 AJ JCZ	6 – 12	310 / 15
SI 132 bahama	BZS KSS 03 AF JCZ	6 – 12	310 / 15
SI 133 anemone	BZS KSS 03 AS JCZ	6 – 12	310 / 15
SI 134 caramel	BZS KSS 03 AI JCZ	6 – 12	310 / 15
SI 139 dark brown	BZS KSS 03 AT JCZ	6 – 12	310 / 15
SI 135 brown	BZS KSS 03 BH JCZ	6 – 12	310 / 15
SI 149 red	BZS KSS 03 AV JCZ	6 – 12	310 / 15
SI 145 brick	BZS KSS 03 CG JCZ	6 – 12	310 / 15
SI 144 orange	BZS KSS 03 CI JCZ	6 – 12	310 / 15
SI 162 dark yellow	BZS KSS 03 CR JCZ	6 – 12	310 / 15
SI 163 yellow	BZS KSS 03 CT JCZ	6 – 12	310 / 15
SI 164 light yellow	BZS KSS 03 CS JCZ	6 – 12	310 / 15
SI 180 light green	BZS KSS 03 CP JCZ	6 – 12	310 / 15
SI 181 green	BZS KSS 03CL JCZ	6 – 12	310 / 15
SI 115 turquoise	BZS KSS 03 AZ JCZ	6 – 12	310 / 15
SI 113 crocus	BZS KSS 03 AK JCZ	6 – 12	310 / 15
SI 165 light blue	BZS KSS 03 BD JCZ	6 – 12	310 / 15
SI 119 dark blue	BZS KSS 03 AM JCZ	6 – 12	310 / 15

SI - SANITAR – FLEXIBLE SEALING SILICONE

INTENDED USE:

Silicone sealing agent intended for internal and external. It is suitable for flexible joints in hygienic areas such as bathrooms and kitchens. SI Sanitar is resistant against fungus and cleaning agents. As a consequence of the acid hardening course, this product is not suitable for metallic (zinc, steel...) and mineral (concrete plaster, marble...) bases. Using the PRIMER NP, adhesion to absorbent and non absorbent bases will be significantly increased.

Other important information:

- Shelf life: 24 months – If stored in a dry place
- Movement: 20%
- **PROTECT AGAINST FROST!**

NSI
neutral silicone

NEUTRAL SILICONE

MARKING		USAGE (appr.) (1 cartouche/appr. common metre)	PACKAGING ml/pcs in pack
NSI 199 transparent	BZS KSN 03 CW JCZ	6 – 12	310 / 15

NSI - SANITAR – FLEXIBLE SEALING SILICONE WITH A NEUTRAL COURSE OF HARDENING

INTENDED USE:

Silicone sealing agent intended for internal and external environments having a neutral course of hardening. It is suitable for flexible joints in hygienic areas such as bathrooms and kitchens in addition to joints on external facades. NSI is resistant against fungus and cleaning agents. As a consequence of the neutral hardening course, this product is suitable for metallic (zinc, steel...) and mineral (concrete plaster, marble...) bases and mirrors. Using the PRIMER NP, adhesion to absorbent and non absorbent bases will be significantly increased.

Other important information:

- Shelf life: 24 months – If stored in a dry place
- Movement: 25%
- **PROTECT AGAINST FROST!**

PRIMER NP

PRIMER FOR NON-ABSORBENT BASES

MARKING		USAGE (appr. common metre)	PACKAGING pcs/pallet (kg)
PRIMER NP	BCN P16 00 00 J0Z	8 – 20 ml/m	500 ml

PRIMER NP – PRIMER FOR SILICONE ON NON ABSORBENT BASES

INTENDED USE:

Primer intended for the improvement of adhesion between non absorbent bases and applied silicones SI or NSI.

Other important information:

- Shelf life: 12 months – If stored in a dry place
- **PROTECT AGAINST FROST!**

SAB
polyurethane sealant

POLYURETHANE SEALANT

MARKING		USAGE (appr.) (1 cartouche/appr. common metre)	PACKAGING ml/pcs in pack
SAB 121 manhattan	BZS KTP 03 BE JCZ	6 – 12	310 / 25
SAB 100 white	BZS KTP 03 BB JBZ	6 – 12	310 / 25

SAB – FLEXIBLE SEALING MATERIAL FOR INTERNAL AND EXTERNAL USE

INTENDED USE:

Polyurethane sealant with a neutral reaction suitable for flexible joints of facades, balconies, terraces... It has very good adhesion to non porous surfaces and can be easily painted over with dispersion colors. Using the PRIMER NP, adhesion to absorbent and non absorbent bases will be significantly increased.

Other important information:

- Shelf life: 18 months – If stored in a dry place
- Movement: 25%
- **PROTECT AGAINST FROST!**

PES
polyethylene separator

POLYETHYLEN SEPARATOR

MARKING			PACKAGING pcs/pallet (kg)
PES	BZS APP 99 04 J0Z	ø 4 mm	100 bm
PES	BZS APP 99 06 J0Z	ø 6 mm	100 bm
PES	BZS APP 99 08 J0Z	ø 8 mm	100 bm
PES	BZS APP 99 10 J0Z	ø 10 mm	100 bm
PES	BZS APP 99 12 L0Z	ø 12 mm*	100 bm
PES	BZS APP 99 15 L0Z	ø 15 mm*	100 bm

PES – POLYETHYLENE SEPERATOR CORDE

INTENDED USE:

PES is to be inserted into working joints before application of flexible sealing materials. It optimizes the shape of the sealing cement in a joint, prevents undesired adhesion of cement to the joint and thus increases significantly its life time and effectiveness.

Other important information:

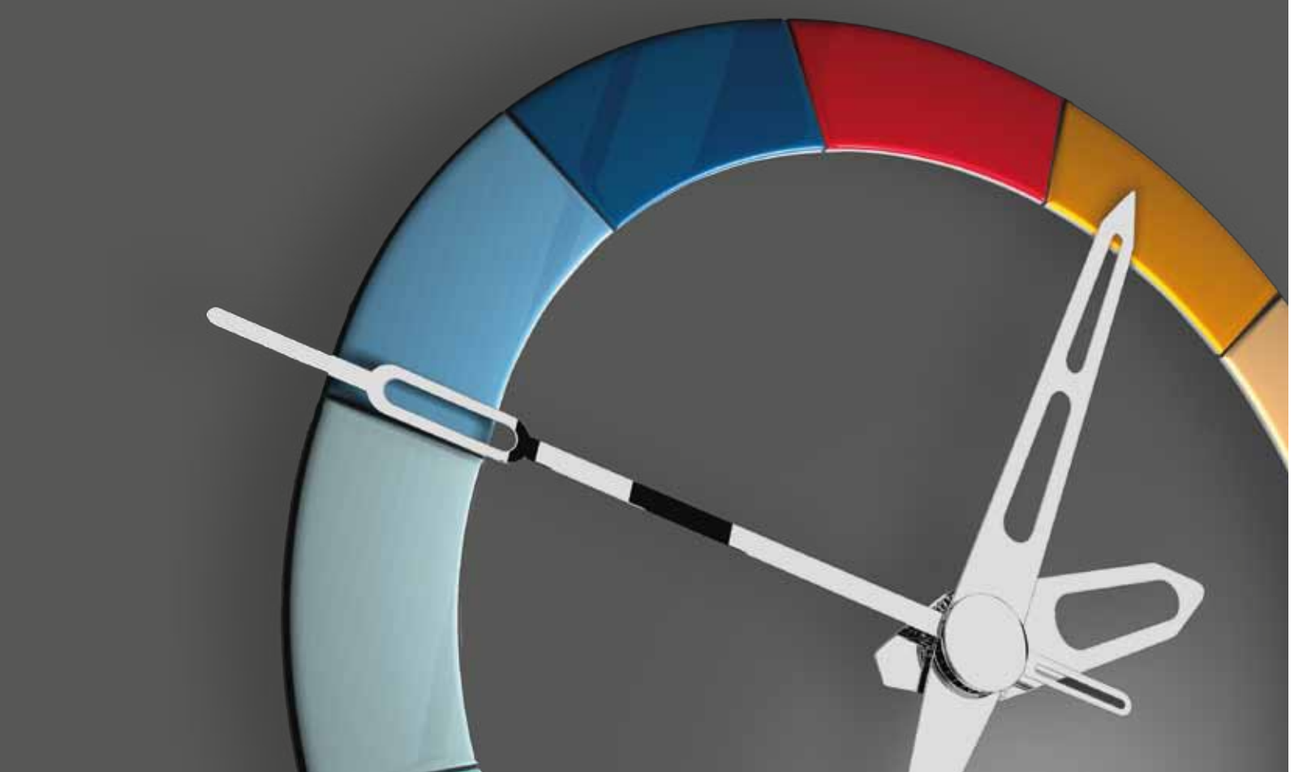
- Diameters supplied: 4, 6, 8, 10, 12* and 15* mm

***until sold out**

goods available to order

RAKO SYSTEM

CLEANING AGENTS



CL 801

ACTIVE CLEANER FOR VITRIFIED CERAMIC TILES

MARKING		SPREADING CAPACITY	PACKAGING l/pcs in pack
CL 801	BZS C01 07 00 JKZ	750 - 300 m²/pack	0,75 / 18
	BZS C01 05 00 JKZ ✉	5000 - 2000 m²/pack	5

CL 801 – ACTIVE CLEANER FOR VITREOUS CERAMIC TILES

INTENDED USE:

Cleaning agent designed for slightly and heavily soiled quartz, vitreous on glazed and glazed gres-porcellanato materials. It can be used for periodical and daily cleaning in industrial plants, residential houses, administration buildings... It is used for surfaces prone to development of scale, mineral sediments, rust (pools and spas for example).

Other important information:

- Shelf life: 36 months
- pH value: 1.2 – 2.2 according to dilution
- **PROTECT AGAINST FROST!**

CL 802

FOR POST-BUILDING CLEANUP AND REMOVAL OF CEMENT AND LIME RESIDUES

MARKING		SPREADING CAPACITY	PACKAGING l/pcs in pack
CL 802	BZS C02 07 00 JKZ	300 - 150 m²/pack	0,75/18

CL 802 – CLEANING AGENT FOR CEMENT RESIDUES

INTENDED USE:

Cleaning agent designed for removal of cement and lime residues from the surface of ceramic, granite, engineered quartz and other materials resistant to acids. It is ideal for the rough cleaning directly after the construction and achieves results from the first usage. CL 802 works effectively on clays after wall painting, cement veils, magnesium and mineral sediments (rust and water or uric stains on the tiles).
Do not use on marble or non acid resistant materials nor on wooden materials.

Other important information:

- Shelf life: 36 months
- pH value: 1.2 – 2.2 according to dilution
- **PROTECT AGAINST FROST!**

CL 803

FOR DAILY CLEANUP

MARKING		SPREADING CAPACITY	PACKAGING l/pcs in pack
CL 803	BZS C03 07 00 JKZ	1500 - 300 m²/pack	0,75 / 18
	BZS C01 05 00 JKZ ✉	10000 - 2000 m²/pack	5

CL 803 – CLEANING AGENT FOR DAILY USAGE

INTENDED USE:

Cleaning agent designed for daily usage and polishing of surfaces in a single step. It is convenient for sensitive surfaces such as natural marble, granite as well as artificial marble. It contains very fine neutral elements which remove stubborn dirt. It can also be used for plastics.

Other important information:

- Shelf life: 36 months
- pH value: 7 – 8 according to dilution
- **PROTECT AGAINST FROST!**

✉ **goods available to order**

CL 804

FOR A HIGH GLOSS IN THE BATHROOM

MARKING		SPREADING CAPACITY	PACKAGING l/pcs in pack
CL 804	BZS C04 07 00 JKZ	–	0,75 / 18
	BZS C04 05 00 JKZ ✉	–	5

CL 804 – CLEANING AGENT FOR DAILY USAGE

INTENDED USE:

CL 804 is a cleaner that guarantees a perfectly polished bathroom. It is used for tiles, washbasins, bathtubs, showers, mixer taps, external areas of toilets etc... The agent easily removes stains and sediments of scale and contains a glossy substance that slows pollution of the surface and improves appearance of polished and chromed surfaces for a long time. It is not suitable for surfaces that are not resistant to acids such as marble for example.

Other important information:

- Shelf life: 36 months
- pH value: 2.0 according to dilution
- **PROTECT AGAINST FROST!**

CL 810

FOR REMOVAL OF GREASE AND OILS

MARKING		SPREADING CAPACITY	PACKAGING l/pcs in pack
CL 810	BZS C10 07 00 JKZ	750 - 300 m²/pack	0,75 / 18
	BZS C10 05 00 JKZ ✉	5000 - 2000 m²/pack	5

CL 810 – CLEANING AGENT FOR GREASES & OILS

INTENDED USE:

Cleaning agent designed for removal of greases and oils from the surface of ceramic, granite, engineered stones, marble, rubber floors, varnished parquet... It is ideal for the rough cleaning directly after the construction and achieves results from the first usage.

Do not use on raw wooden materials.

Other important information:

- Shelf life: 36 months
- pH value: 8.5 – 9 according to dilution
- **PROTECT AGAINST FROST!**

CL 805

FOR REMOVAL OF EPOXY BINDERS

MARKING		SPREADING CAPACITY	PACKAGING l/pcs in pack
CL 805	BZS C05 07 00 JOZ	1–2 m²/pack	0,75 / 6

CL 805 – CLEANING AGENT FOR REMOVAL OF EPOXY CEMENT RESIDUES

INTENDED USE:

Cleaning agent designed for removal of epoxy glue residues and specifically epoxy joints from the surface of ceramic, granite, engineered quartz and similar materials. It is ideal for the rough cleaning directly after the construction and achieves results from the first usage.

Other important information:

- Shelf life: 36 months
- pH value: 8.0 according to dilution
- **PROTECT AGAINST FROST!**

CL 806

FOR REMOVAL OF SILICONES

MARKING		SPREADING CAPACITY	PACKAGING l
CL 806	BZS C46 02 00 JOZ	0,2 - 0,8 m²/pack	0,2

CL 806 – CLEANING AGENT FOR REMOVAL OF SILICONE RESIDUES

INTENDED USE:

Cleaning agent designed for removal of silicone jointing sealants from the surface of ceramic, granite, engineered quartz and similar materials. It is ideal for the rough cleaning directly after the construction and achieves results from the first usage.

Other important information:

- Shelf life: 36 months
- pH value: 4.0 – 7.0 according to dilution
- **PROTECT AGAINST FROST!**

CL 809

IMPREGNATION FOR CERAMIC WALL AND FLOOR TILES

MARKING		SPREADING CAPACITY	PACKAGING l/pcs in pack
CL 809	BZS C09 01 00 JKZ	35 - 50 m²/pack	1 / 6

CL 809 – IMPREGNATION FOR ABSORBENT AND NON ABSORBENT MATERIALS

INTENDED USE:

The product is intended for impregnating porous and non porous materials creating a protective layer on the surface of the material. This coat prevents the inrush liquids, specifically water and oils. CL 809 also facilitates the removal graffiti and other pollution stuck on the tiles.

It does not affect slipperiness properties.

Other important information:

- Shelf life: 36 months
- pH value: 4.0 – 7.0 according to dilution
- **PROTECT AGAINST FROST!**

✉ **goods available to order**

RAKO SYSTEM

ADDITIONAL GOODS

SDI panel
sound insulating

SOUND INSULATION PANEL

MARKING		PACKAGING
SDI panel	BZS PDI 05 00 J0Z	panels 100x60x0.5 cm; 20 pieces in 1 carton

SOUND INSULATION AND SEPARATION PANEL

This material is intended for damping footfall sound and also as a separation insert for the elimination of shear stress between the paving and deforming base. During installation directly beneath ceramic paving we create very efficient footfall insulation with a thickness of up to 18 mm including the ceramics. This compound is part of the RAKO SYSTEM-SILENT TILING.

Further information:

- **Sound attenuation:** ΔLw up to 18dB
- **Panel dimensions:** 1000x600x5 mm
- **Packaging:** 20 pcs (12 m²), event. loose panels • **Storage life:** horizontally in dry place

DSAT
dilatation self-adhesive tape

DILATATION SELF-ADHESIVE TAPE

MARKING			PACKAGING
DSAT	BZS APD 30 03 J0Z	width 25 mm	30
	BZS APD 30 07 J0Z	width 65 mm	30

DSAT – DILATATION SELF ADHESIVE TAPE

INTENDED USE:

DSAT is to be applied on contact surfaces of working joints before the assembly of the second contact surface. It enables the advance and shear motions in a dilatation joint.

Other important information:

- Shelf life: 24 months – If stored in a dry place
- Absorption capacity: None

SAND

PACKED SILICA SAND

MARKING		PACKAGING kg
Fraction 0,6–1,2 mm	BSI STR 05 12 J0V	5
Fraction 0,6–1,2 mm	BSI STR 30 12 J0V	30

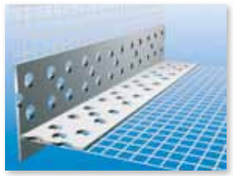
PROFILE

MICRO DRIP MOULDING

MARKING		PACKAGING
Profil	BZZ FKA 00 00 J0Z	2 m

PROFILE - MICRO DRIP MOULDING

A profile fitted with netting for mounting used for protection of the balcony front where precipitation water is drained and prevents leakage of water into the balcony ceiling, its soiling and freezing. This compound is part of the RAKO SYSTEM – BALCONIES.



RAKO SYSTEM

SYSTEM SOLUTIONS

RAKO SYSTEM

BALCONIES

TYPE OF STRUCTURE:

- **PE 202 PRIMER**
- **DSAT SELF ADHESIVE JOINT TAPE**
- **OV 40, OV 30, OR OV 30 SPEED BALCONY SCREED**
- **SE 6 WATERPROOFING SLURRY IN TWO LAYERS WITH A MIN. THICKNESS OF 2 MM OR SE MACH3**
- **SE 5 SEALING TAPE WITH A MIN. WIDTH OF 100 MM**
- **AD 530 OR AD 540 ADHESIVE**
- **CERAMIC TILES INCLUDING BALCONY SHAPED PIECES**
- **GFS FLEXIBLE JOINTING MATERIAL**
- **SAB POLYURETHANE SEALANT + PES POLYETHYLEN SEPARATOR**

CERTIFIED 10 YEARS TZÚS Praha, s.p.

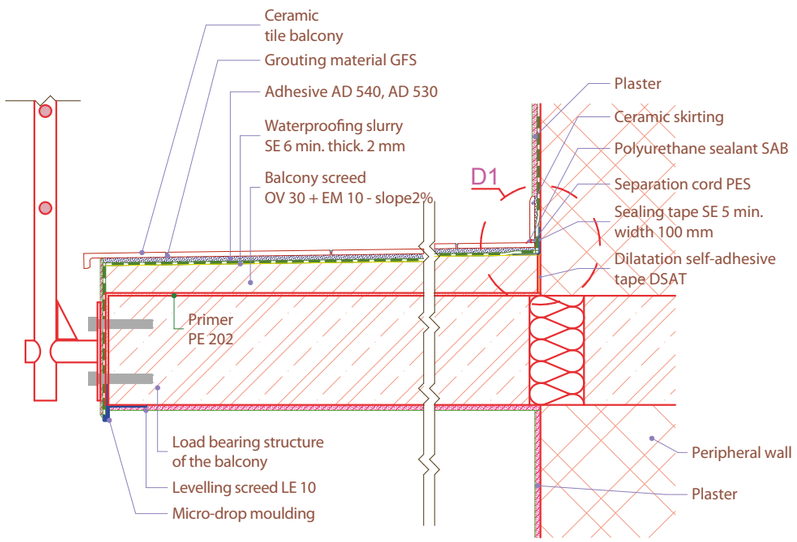
Balconies are demanding installation areas for ceramic tiles. The reason for this is because ceramic tiles are directly exposed to changes in weather and must withstand their effects. The heat and humidity loads they experience are rather marked, which make professional assessment and design documentation required elements. Our balcony system solutions deal with external flooring structures up to approximately 4 m², and make it unnecessary to conduct full-surface jointing. Circumferential jointing is, however, always necessary (floor/wall interface)! Water drainage is dealt with by a simple overflow provided on at least one side, and does not require a gutter pipe. We recommend railing posts to be embedded beyond the ceramic tiles at all times:

WORK PROCEDURE – DETAILED DESCRIPTION

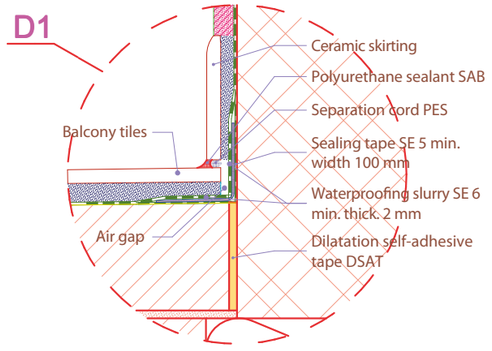
Bearing bracket repair where required: During reconstruction of the balcony, the bearing brackets often need to be repaired following the removal of the old sloped concrete. This makes it necessary to fully remove the deteriorated concrete and give the steel reinforcements a thorough cleaning. The freshly cleaned surface of the steel must then be treated with a double anticorrosion coat of **MO AC**. Once the coating has cured, the entire concrete surface must be treated with **PE 202** at the required diluted ratio (approx. 1:3–5) and re-profiled with self-contacting **MO 50**. The front edge of the balcony and the ceiling must be finely smoothened with **LE 10** screed. A special micro drip mould must be installed in the sealant layer on the bottom edge of the balcony face. More information is available from RAKO SYSTEM specialists.
Base priming: The concrete load bearing structure must be treated with **PE 202** primer at the required diluted ratio (approx. 1:3). Approximately 0.15 l/m² of liquid should be applied.
Creating the slope wedge: The slope of the floor structure must be at least 2%. The slope is produced using **OV 40** screed. Self-adhesive **DSAT** joint tape should be used to isolate the floor from the wall. Another alternative involves creating the slope wedge using **OV 30 (OV 30 SPEED)** screed with the addition of **EM 10** refining emulsion. The contact layer is produced by adding 1 l of **EM 10** and 1 l of water to 8 kg of **OV 30 (OV 30 SPEED)** and, within this damp contact layer, the slope wedge is produced with a mixture of **EM 10** and **OV 30 (OV 30 SPEED)** at a ratio of 0.5–1.25 l/bag. This alternative is recommended for thicker layers. More information is available from RAKO SYSTEM specialists.
Insulation: The sloped balcony surface, including the faces, are treated with two layers of **SE 6** screed insulation that have an overall minimum thickness of 2 mm, where roughly 3 kg per m² is needed. The screed material creates a flexible insulation layer which terminates at the edge of the micro drip moulds. The interval between applications of the individual layers is approx. 4 hours. Another possibility is to use express **SE MACH3** insulatiion material. For bridging any transitions, **SE 5** gauze is inserted to the insulating layer. The gauze must be attached across the entire surface of the **SE 6**. Approx. 0.30 kg/bm is needed. The structural solution used for these features is based on detailed designs or consultations with our technical advisors.
Installation of ceramic tiles: The tiles are laid directly on the cured insulation screed, i.e. after approx. 1–3 days. Sintered tiles (Taurus, Kentaur) are an ideal choice for balconies, complete with an overflow balcony shaped piece, which exhibits the same expansion values during temperature changes as the tiling itself. The tiles, including the shaped pieces, are installed with C2TES1 grade flexible **AD 530** cement adhesive. C2FE grade **AD 540** adhesive may also be used. The product is a free flowing adhesive, which minimizes the risk of cavities developing underneath the ceramic shell. Approx. 5–8 kg/m² is needed.
Surface tile jointing: The tiles, including the shaped pieces, are subject to surface jointing with super-flexible, fast-drying, water-repellent and waterproof **GFS** grade CG2WAS1. The balcony shaped pieces, which line up approx. 3–5 cm over the edge, must have cover tape applied on the underside before jointing. The selected joint width should be at least 4 mm. Approx. 0.4–0.8 kg/m² is needed.
Resealing the transition joints: Permanently flexible **SAB** sealant must be used to allow movement in the transition joint. When applying **SAB**, it is recommended that the **PES** polyethylene separator be used at the same time. This will prevent undesired adhesion to the bottom of the joint and define the exact shape of the sealant. The 310 ml cartridge will cover approx. 6–12 bm, depending on the size of the joint.

Cleaning:
Once the residual cement is removed, use the **CL 802** cleaning agent.

This system has been tested using a special methodology with simulated weather effects corresponding to 10 years in operation. Tested was conducted by TZÚS Praha, s.p., a product manufacturing certification body, České Budějovice branch, certificate No. 020-033170.



Balcony L-shape detail



TYPE OF STRUCTURE

POOLS

TYPE OF STRUCTURE:

- **PE 201, PE 202 PRIMER**
- **SE 6 WATERPROOFING SLURRY WITH A MIN. THICKNESS OF 3 MM**
- **SE 5 SEALING TAPE WITH A MIN. WIDTH OF 100 MM**
- **AD 530 OR AD 550 ADHESIVE**
- **POOL TILES (COLOR TWO OR POOL SERIES)**
- **GE EASY EPOXY JOINTING MATERIAL**
- **SI SILICONE SEALANT + PES POLYETHYLENE SEPARATOR**

Pools represent a very tough application in the field of insulation and installation of ceramic tiles due the ongoing exposure to pressurized water and regular sanitation. The solution always requires a professional assessment and professional design documentation. In pools, we place very stringent requirements on the base structures where we strongly recommend the use of waterproof concrete:

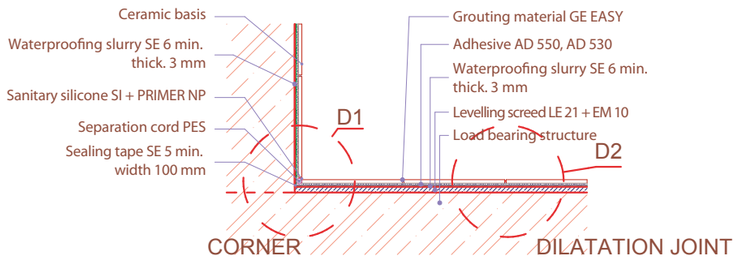
WORK PROCEDURE – DETAILED DESCRIPTION

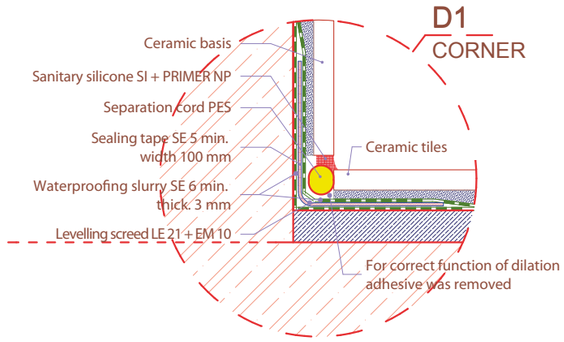
Preparation: The base must fulfil the requirements specified by the design documentation and relevant standards. It must be cured with a residual humidity of up to 4%. The tensile strength value must be at least 1.5 MPa. Deviation of the base flatness must not exceed 2 mm per 2 m of the bar. In the event of any shortcomings in this area, the surface must be levelled with **LE 21** levelling screed with the addition of a 1-15 mm layer of **EM 10** refining emulsion or **MO 50** correction material with a thickness of 2-35 mm. For quick localized repairs, **MO 35 QUICK** may be used. The surface of the repaired concrete must always be primed with **PE 201** or **PE 202**.
Insulation – perfect sealing of the pool including the adjacent gutters and walkways: The insulation is applied with **SE 6** screed in three layers with a total thickness of 3 mm and a width of approx. 4.5 kg per m². The product creates a permanent elastic insulation layer resistant to the pressure created by the water. The interval between applying each individual layer is approx. 4-6 hours. For bridging any transitions and joints, and for reinforcing the internal corners, **SE 5** gauze is inserted in the insulating layer. The gauze must be attached across the entire surface of the **SE 6**. For full contact, approx. 0.3 kg/bm is needed. Specific passage points are sealed with **SAB** elastic polyurethane sealant without any base coat applied. The structural design used for these features is based on detailed designs or consultations with our technical advisors.
Sealing check prior to undertaking further work due to the possible need to repair leaks – flood test: The entire insulation system is only ready for the flood test after it has fully cured, i.e. after 7 days. When the express **SE MACH3** insulation material is used, the entire curing process for the insulation system will be reduced to a mere 3 days!!!
Installation of ceramic tiles on insulation screed: Various types of adhesive sealants may be used for attaching pool tiles. Maximum caution must be exercised at all times as repairs carried out during installation directly on the insulation layer involve a great deal of risk. We always apply the buttering-floating method in order to ensure no cavities develop between the tile/base, and we always keep the expansion joint fields free. For standard pool program formats, we use C2TES1 grade **AD 530** cement adhesive. For smaller formats and mosaics, we use C2TES1 grade white **AD 550** adhesive. We recommend for non-ceramic tiles be attached directly with the **GE** epoxy system. Between 2.5 and 5 kg/m² is typically needed.
Jointing of the ceramic shell with a product chemically resistant to disinfectants used for operation of the pool: RG grade **GE EASY** epoxy-based jointing material is used for the jointing and is supplied in seven different colors. The improved formula of this material exhibits markedly improved washing characteristics after jointing!!!

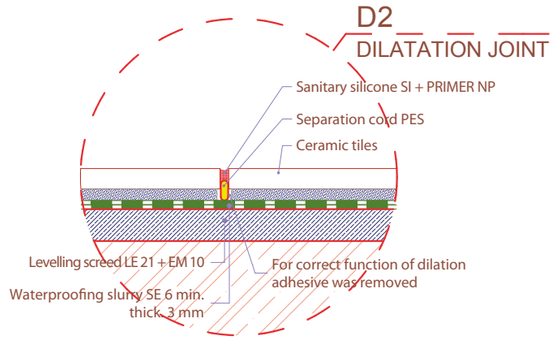
The adhesive must be cured and the joint clean and dry. Approx. 1-1.8 kg/m² is needed, depending on the format size of the tiles.
Resealing joints in passageways and transitions with permanent elastic sealant: In order to allow movement in the expansion joint, **SI** sanitary silicone with an adhesive **PRIMER NP** base coat must be applied to non-absorbent bases. The spreading rate of the 310 ml cartridge is approx. 5-12 mb, depending on the size of the joint. Between 8-20 ml/mb is needed for the base coat, depending on absorbency and shape of the joint. The color range covers all colors of the **GE EASY** product. If **SI** silicone is applied, the **PES** polyethylene separator must be used. It will prevent undesired adhesion to the bottom of the joint and define the exact shape of the silicone.

Cleaning a maintenance:
For regular maintenance, use the **CL 803** cleaning agent combined with **CL 802** (scale) and **CL 810** (grease). A cleaning plan must be created for the premises. Poor cleaning leads to impurities building up, which deteriorates slip protection properties.

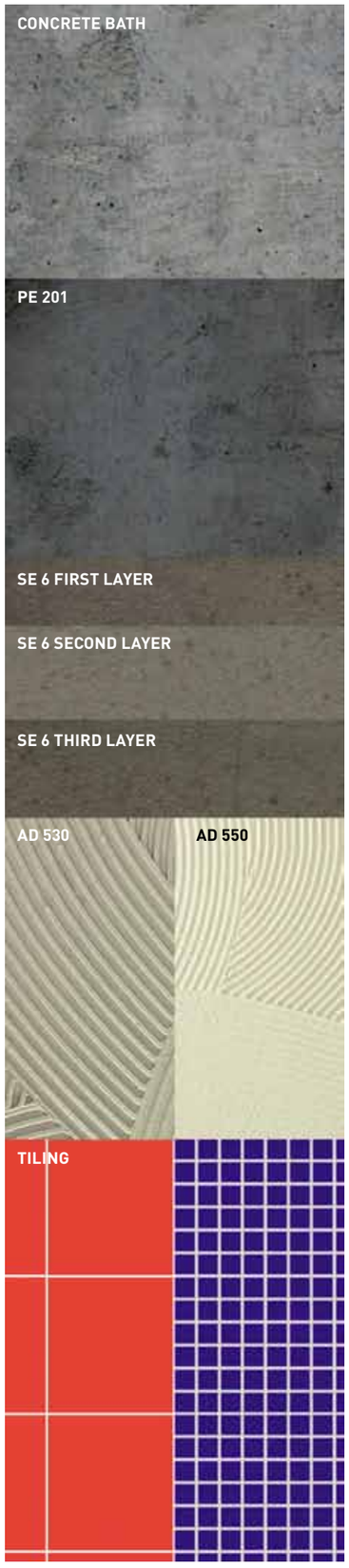
Pool







TYPE OF STRUCTURE



BATHROOMS

TYPE OF STRUCTURE:

- **PE 201, PE 202 PRIMER**
- **SE 1 WATERPROOFING SCREED**
- **SE 5 SEALING TAPE WITH A MIN. WIDTH OF 80 MM**
- **AD 510 PLUS OR AD 509 ADHESIVE**
- **CERAMIC TILES**
- **GF DRY OR GF BIO JOINTING MATERIAL**
- **SI SILICONE SEALANT + POLYETHYLENE SEPARATOR**

Short-term, but regular, humidity may apply excessive loads to the base structures and, for penetrating humidity, may create ideal conditions for micro-organic growth. Therefore, water leakage to the base must be prevented. To this end, we recommend applying the following procedures and types of construction materials:

WORK PROCEDURE – DETAILED DESCRIPTION

Preparation: The base must be rigid, cured, and free of any impurities and uneven spots. In the event of any problems in these areas, use **LE 21** for levelling of the walls and floors. For quick localized repairs, use **MO 35 QUICK**.
Priming absorbent bases: All absorbent bases must be primed with **PE 201**. For extremely absorbent materials, use **PE 202** at the required dilution ratio (approx. 1:3-5). Approx. 0.15-0.25 l/m^2 of the product is needed.
Insulation – sealing all water-loaded rooms: Insulate the primed surfaces with **SE 1** in two layers, taking a 4-6 hour break between applications. The tiles will be ready for loading and gluing after approx. 10-12 hours. Approx. 1.2-1.6 kg/m^2 is needed. For bridging any transitions and joints, and for reinforcing the internal corners, **SE 5** gauze is inserted into the insulating layer. The gauze must be attached across the entire surface of the **SE 1**. Approx. 0.25 kg/mb is needed for full contact.
Installation of ceramic wall and floor tiles on the insulation layer: Modified adhesive sealants must be used for wall and floor tile installations. For the standard formats within our housing ceramic program, we use C1TE grade **AD 510 PLUS** cement adhesive. For smaller formats and mosaics, C1TE grade white **AD 509 PLUS** cement adhesive may be used. Between 2 and 4 kg/m^2 of sealant is needed.
Ceramic shell jointing: For jointing, we use flexible **GF BIO** material, or CG2WA grade **GF DRY**. Thanks to special additives, use of these jointing materials increases the water repellent qualities of the system; **GF BIO** moreover offers protection against mould and efflorescence. This markedly increases the sanitary properties of the entire surface! Between approx. 0.3 and 0.8 kg/m^2 is typically needed, depending on the format size of the tiles.
Sealing of flexible joints and passageways with permanently elastic sealant: Permanently elastic **SI** sealant must be used to allow expansion movement within the joint. The color range covers all colors of the **GE DRY** product line. If **SI** silicone is applied, it is recommended that a **PES** polyethylene separator be used. It will prevent undesired adhesion to the bottom of the joint and define the exact shape of the silicone filler. The spreading rate of the 310 ml cartridge is approx. 6-12 mb, depending on the size of the joint.

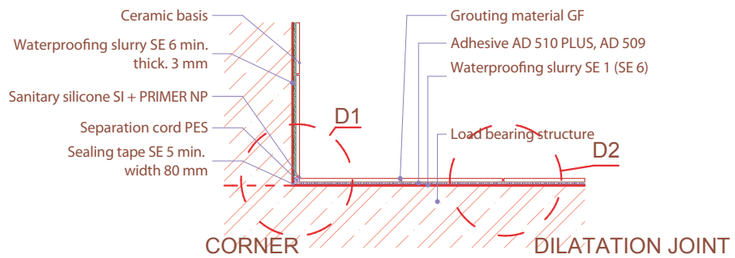
Cleaning
Use the **CL 802** cleaning agent to remove any cement deposits.
Once the surface is thoroughly cleaned, we recommend that full-surface priming be applied with **CL 809**.

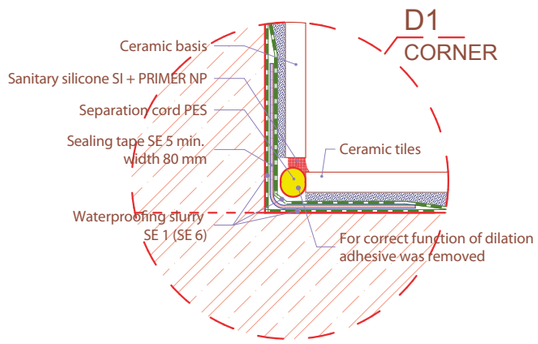
Maintenance
Use the **CL 804** (tiles, faucets, sanitary installations, etc.) and **CL 803** (floors) cleaning agents for regular cleaning.

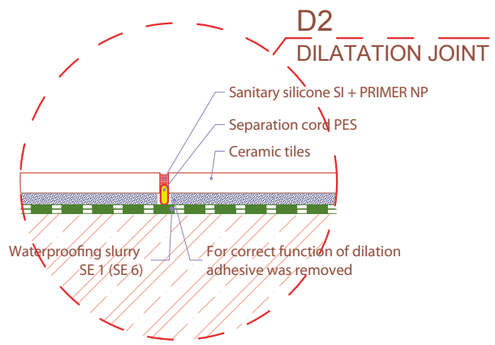
„DRY EFFECT" – moisture-proof declaration

„BIO EFFECT" – contains biocides

Bathroom







TYPE OF STRUCTURE

SILENT TILING

TYPE OF STRUCTURE:

- **PE 202 PRIMER (MINERAL WOOL IMPACT SOUND INSULATION)**
- **LE 30 SELF-LEVELLING MATERIAL (OSB BOARDS IN TWO LAYERS, WITH CP 203 CONTACT BRIDGE PLACED OVER THEM)**
- **DSAT SELF ADHESIVE JOINT TAPE**
- **AD 590 OR AD 530 ADHESIVE**
- **SDI PANEL**
- **AD 590 OR AD 530 ADHESIVE**
- **CERAMIC TILES**
- **GF DRY OR GFS FLEXIBLE JOINTING MATERIAL**
- **SI SILICONE SEALANT + PES POLYETHYLENE SEPARATOR**

In order to minimize the dimensional requirements for the composition of impact sound insulation, we offer a very effective solution using an SDI sound insulation panel. During laying, the slab is placed right under the ceramic tiles, with the resulting composition providing the defined sound transmission attenuation.
Moreover, the panel eliminates the risk of shear stress under excessive deformations in the floor structure, thus allowing the laying of tiles on entirely non-standard bases (such as wooden ceiling structures, particleboard flooring, etc.).

WORK PROCEDURE – DETAILED DESCRIPTION

Preparation: The base must exhibit adequate strength and consistency before laying. The base flatness deviation must not exceed 2 mm per 2 m of the bar. In the event of any shortcomings identified in this area, use **LE 20** or **LE 30** self-levelling material. Where the laying is undertaken on top of an impact sound insulation layer with a higher thickness, the base must be strengthened with the installation of two OSB board layers. The 18 mm and 15 mm-thick boards are laid on the joint connections, perfectly fixing the two layers to one another with screws.
Base priming: The absorbent flooring structure surfaces must be primed with **PE 202** at the required dilution ratio (approx. 1:3-5). Approximately 0.15 l/m^2 of liquid is needed. A contact bridge must be applied to deformable and non-absorbent bases (Cetris, OSB) using the **CP 203** filler-bearing product. Approx. 0.25-0.4 kg/m^2 is needed for the contact bridge.
Installation of a peripheral insulation strip: A self-adhesive **DSAT** separating strip, 25 mm wide, must be installed around the circumference of the insulated surface. The strip will disrupt any sound bridges formed between the tiles/wall.
Installation of a sound insulation panel: The **SDI** sound insulation panel is installed using C2FTES1 grade **AD 590** cement adhesive, which, with its special composition, ensures perfect contact with the panel material and shortens the application intervals. We use a Swedish smoother, 3-4 mm long, which gives a consumption figure of approx. 2.1 kg/m^2. We recommend that the joints between the boards be resealed with a narrow paper tape preventing any sound bridges from developing when the tiles are attached.
Insulation – sealing all water-loaded spots: The insulation is applied to the integrated **SDI** panels, see bathroom system solutions.
Installation of ceramic tiles: Again, C2FTES1 grade **AD 590** cement adhesive is used for installation of the ceramic tiles. An 8 mm smoother is used and approx. 4.2 kg/m^2 is needed for attaching the tiles.
Jointing the tile surface: Once the adhesive has fully cured, CG2WA grade **GF DRY** cement adhesive (available in the full color spectrum of 24 colors) is used for full-area jointing. Where used on massively deforming bases, we recommend using the quick drying CG2WAS1 grade **GFS** product, with increased transversal deformation properties. Approx. 0.4-0.8 kg/m^2 is needed.

Sealing of expansion joints: In the peripheral joint at the base interface, and in expansion joints, it becomes necessary to use the permanently elastic **SI** silicone sealant, which is supplied in the color range of the **GF DRY** material. If **SI** silicone is applied, it is recommended that a **PES** polyethylene separator be used. It will prevent undesired adhesion to the bottom of the joint and define the exact shape of the silicone. The spreading rate of the 310 ml cartridge is approx. 6-12 bm, depending on the size of the joint.

Cleaning
Once the cement residue is removed, use the **CL 802** cleaning agent.
Once the surface is thoroughly cleaned, we recommend that full-surface priming be applied with **CL 809**.

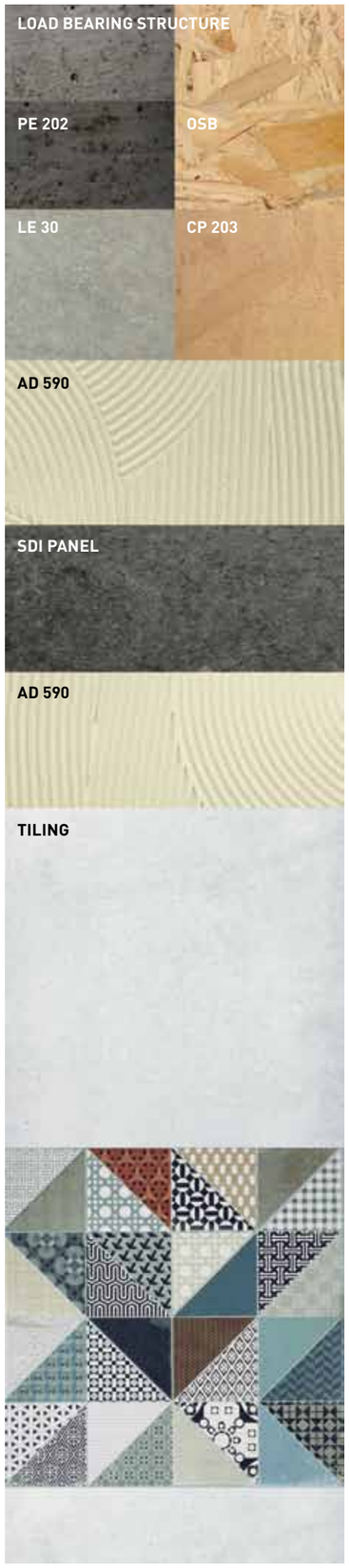
Maintenance
For regular maintenance, use the **CL 803** cleaning agent combined with **CL 802** (scale) and **CL 810** (grease).

Where 30 mm-thick mineral wool impact sound insulation is used, the following applies:
Measured and certified to EN ISO 140-8, by Centrum stavebního inženýrství (Construction Measurement Centre), a.s., Accredited Acoustics Lab No. 10007.5, Praha 10 – Hostivař.

Acoustic study.
Analysis of impact sound insulation of ceiling structures with the use of soundproof ceramic floor technology with an **SDI** panel.

The following acoustic data were measured based on the test report:
Weighted footfall sound reduction: **ΔLw ≤ 18 dB**. Sound transmission loss. **Rw = 60 dB**.

TYPE OF STRUCTURE



CERAMIC TILES APPLIED TO PLASTERBOARD CONSTRUCTIONS

TYPE OF STRUCTURE:

- **PE 201, PE 202 PRIMERS**
- **SE 1 WATERPROOFING SCREED**
- **SE 5 SEALING TAPE WITH A MIN. WIDTH OF 80 MM**
- **AD 510 PLUS OR AD 509, AD 530, AD 550 ADHESIVE**
- **CERAMIC TILES OR LINING**
- **GF DRY FLEXIBLE JOINTING MATERIAL**
- **SI SILICONE SEALANT + PES POLYETHYLENE SEPARATOR**

While applying tiles to dry assembled structures, caution must be exercised while dealing with their flexibility and material adaptability (in this case, ceramic tiles) in order to balance any movement within the structure. Therefore, we concentrate on conditioning the base and using flexible installation materials.

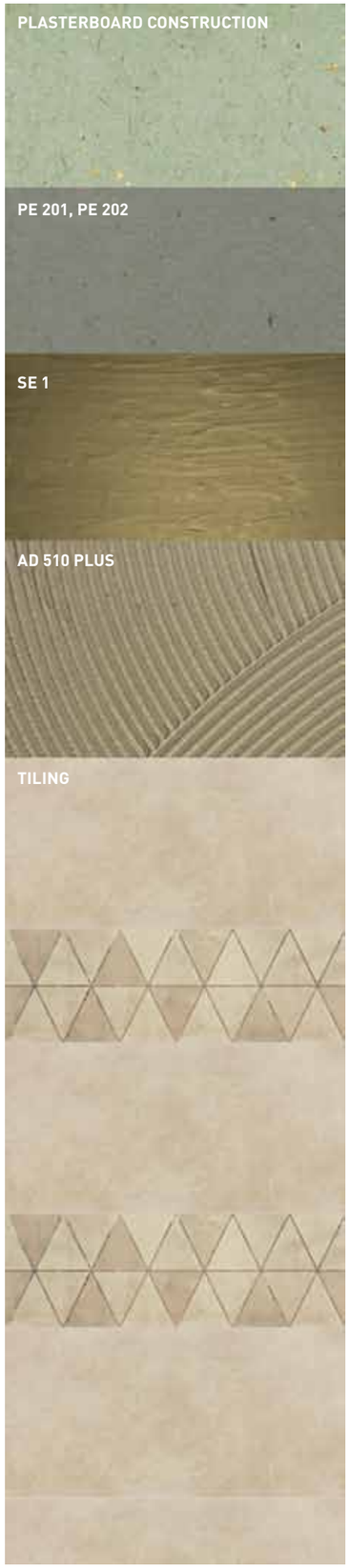
WORK PROCEDURE – DETAILED DESCRIPTION

Preparation: The base must be rigid, cured, and free of any impurities and uneven spots.
Base priming: For plasterboard panels, their absorbency must be treated with a full strength **PE 201** product. For extremely absorbent materials, use **PE 202** at the required diluted ratio (approx. 1:3 5). Approx. 0.15-0.25 l/m^2 of the product is needed.
Insulation – sealing all water-loaded rooms: See the bathroom system solutions.
Installation of ceramic wall and floor tiles on an insulation layer: Modified adhesive sealants must be used for wall and floor tile installations. For standard formats within our housing ceramic program, we use C1TE grade **AD 510 PLUS** cement adhesive, or fully flexible **AD 530** adhesive. For reduced formats and mosaics, white C1TE grade **AD 509 PLUS** cement adhesive, or fully flexible **AD 550** adhesive, may be used. Between 2 to 4 kg/m^2 of adhesive is needed.
Ceramic shell jointing: For jointing, we use CG2WA grade **GF BIO** or **GF DRY** flexible material. Thanks to special additives, use of these jointing materials increase the water repellent qualities of the system; **GF BIO** moreover offers protection against mould and efflorescence. This markedly increases the sanitary properties of the entire surface! Between approx. 0.3 and 0.8 kg/m^2 of material is needed, depending on the format size of the tiles.
Sealing of flexible joints and passageways with permanently elastic sealant: Permanently elastic **SI** sealant must be used to allow expansion movement within the joint. The color spectrum covers all colors available in the **GF** series. If **SI** material is applied, it is recommended that **PES** polyethylene separators are used. They will prevent undesired adhesion to the bottom of the joint and define the exact shape of the silicone filler. The spreading rate of the 310 ml cartridge is approx. 6–12 bm, depending on the size of the joint.

Cleaning
In order to remove any cement deposits, use the **CL 802** cleaning agent.
Once the surface is thoroughly cleaned, we recommend that full-surface priming be applied with **CL 809**.

Maintenance
For regular maintenance, use the **CL 803** or **CL 804** cleaning agent.

TYPE OF STRUCTURE



CERAMIC TILES APPLIED TO EXISTING TILING

TYPE OF STRUCTURE:

- **CP 203 OR PE 204 CONTACT BRIDGE**
- **LE 30 OR LE 20 SELF-LEVELLING SCREED FOR FLOORS THAT NEED TO BE LEVELLED**
- **AD 530, AD 550 ADHESIVE**
- **CERAMIC TILES OR LINING**
- **GF DRY OR GF BIO FLEXIBLE JOINTING MATERIAL**
- **SI SILICONE SEALANT + PES POLYETHYLE SEPARATOR**

In reconstructions, we encounter the issue of applying ceramics on top of existing tiles. For ceramic tiles, the task is often to ensure its adhesion to the base and to level any uneven spots. Therefore, a contact bridge must be installed to ensure the new tiles adhere correctly and interact with the base. The following materials will ensure a long service life of the new tiles and allow them to serve their aesthetic purpose.

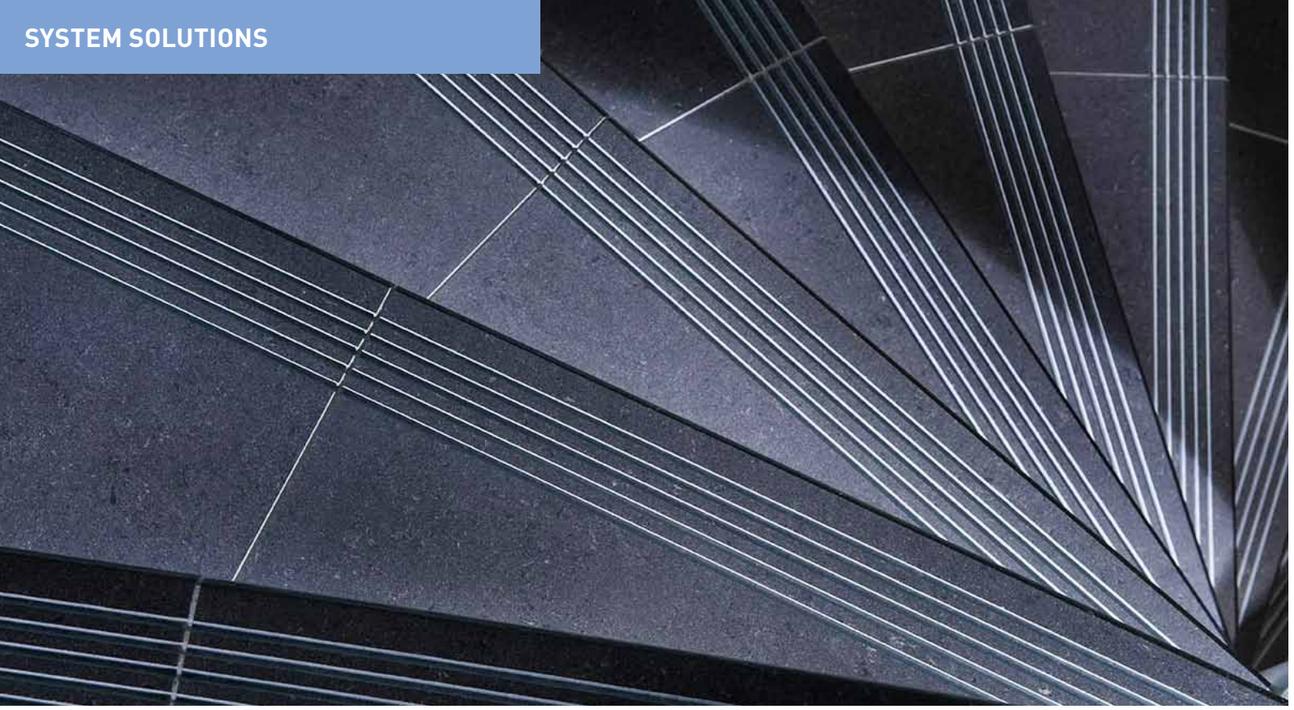
WORK PROCEDURE – DETAILED DESCRIPTION

Preparation: The base must exhibit adequate strength and consistency before laying. If the existing tiles exhibit visible defects (they do not stick to the wall, bulge when knocked, existing joints crumbling, etc.), the incoherent and damaged surface must be removed. A contact bridge is applied to the existing tiles and lining cleaned of any impurities and grease **(CL 810)**, using **CP 203** or **PE 204** (walls and floors). The base flatness deviation must not exceed 2 mm per 2 m of the bar. On walls, flatness must be ensured using **LE 21** self-levelling screed; on floors, it must be achieved using **LE 20** or **LE 30** self-levelling material. Any shortcomings in wall tiles may be locally redressed by applying a layer of the adhesive used.
Insulation – sealing all water-loaded rooms: See the bathroom system solutions.
Installation of ceramic wall and floor tiles: **AD 530** and **AD 550** modified flexible adhesive sealants must be used for wall and floor tile installations. Between 3 to 4.5 kg/m^2 of adhesive will be needed.
Ceramic shell jointing: For jointing, we use CG2WA grade **GF BIO** or **GF DRY** flexible material. Thanks to special additives, use of these jointing materials increase the water repellent qualities of the system; **GF BIO** moreover offers protection against mould and efflorescence. This markedly increases the sanitary properties of the entire surface! Approx. 0.3 to 0.8 kg/m^2 is needed, depending on the format size of the tiles. For larger areas (corridors, halls, etc.), once the adhesive has fully cured, CG2WAS1 grade **GFS** cement adhesive, supplied in 3 colors, is used for full-area jointing. Approx. 0.4-0.8 kg/m^2 is needed.
Sealing flexible joints and passageways with permanently elastic sealant: Permanently elastic **SI** sealant must be used to allow expansion movement within the joint. The color spectrum covers all colors available in the **GF** series. If **SI** material is applied, it is recommended that **PES** polyethylene separators be used. They will prevent undesired adhesion to the bottom of the joint and define the exact shape of the silicone filler. The spreading rate of the 310 ml cartridge is approx. 6–12 bm, depending on the size of the joint.

Cleaning
Once residual cement is removed, use the **CL 802** cleaning agent.
Once the surface is thoroughly cleaned, we recommend that full-surface priming be applied with **CL 809**.

Maintenance
For regular maintenance, use the **CL 803** cleaning agent combined with **CL 802** (scale) and **CL 810** (grease).

TYPE OF STRUCTURE



CERAMIC TILES APPLIED TO METAL

TYPE OF STRUCTURE:

- **CONTACT BRIDGE, WITH SE 4 + CP 203 OR SILICA SAND COVER**
- **AD 321 ADHESIVE EPOXY OR HYPER-FLEXIBLE AD 600**
- **CERAMIC TILES OR LINING**
- **GE EASY OR GFS EPOXY JOINTING MATERIAL**
- **SI SILICONE SEALANT + PES POLYETHYLENE SEPARATOR**

Stringent requirements have currently been introduced on the unity of the surface to which ceramic tiles are applied, resulting in the need for applying wall and floor tiles on non-standard bases (such as steel staircases, lift cabins, etc.). As a base, metal is a very tough material for ceramics due to different expansivity characteristics compared to ceramics. For this reason, we have developed the following system:

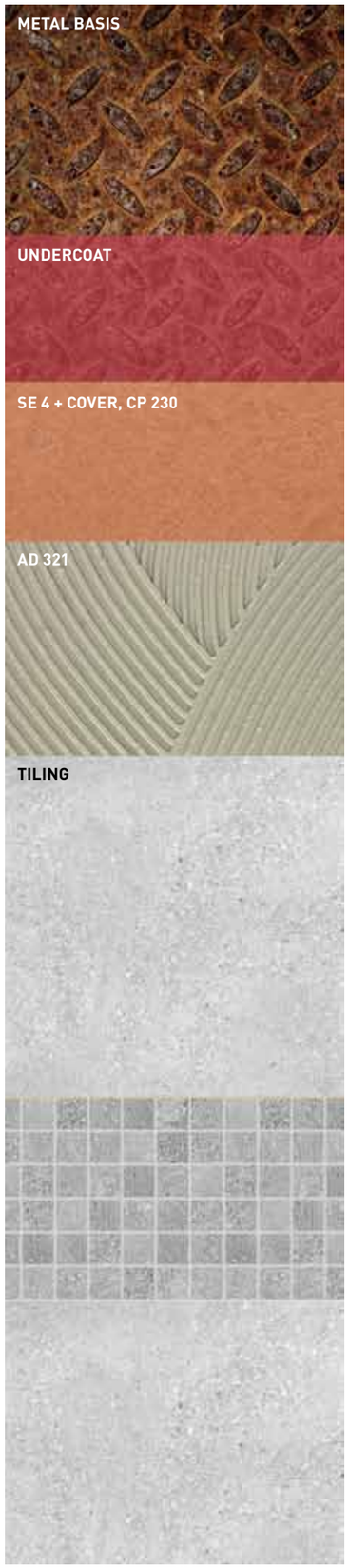
WORK PROCEDURE – DETAILED DESCRIPTION

Preparation: The metallic base must be rigid and well strengthened so as to prevent its deformation and flexion. The surface of metallic bases must be cleaned of all grease, all rust removed and coated with an anticorrosion product. A layer of epoxy must then be applied with the subsequent application of silica sand. In certain cases, a contact bridge based on synthetic dispersion and **CP 203** mineral filler may be used. Once the material has fully cured, application of another layer may be commenced.
Installation of ceramic tiles: Two-component **AD 321** epoxy adhesive, or, for less loaded surfaces, C2FTS2 grade hyper-flexible **AD 600** cement adhesive, may be used for ceramic tiles. Where soundproofing is required, we use the **SDI** sound insulation panel.
Jointing the tile surface: Once the adhesive has fully cured, we apply full-area jointing with RG grade **GE EASY** epoxy jointing material, or CG2WAS1 grade **GFS** cement material. Approx. 0.4-0.8 kg/m^2 is needed.
Sealing of flexible joints and passageways with permanently elastic sealant: Permanently elastic **SI** sealant must be used to allow expansion movement within the joint. If **SI** silicone is applied, it is recommended that **PES** polyethylene separators be used. They will prevent undesired adhesion to the bottom of the joint and define the exact shape of the silicone filler. Base adhesion may be increased by using **PRIMER NP**. The spreading rate of the 310 ml cartridge is approx. 6–12 bm, depending on the size of the joint.

Cleaning
Once residual cement is removed, use the **CL 802** cleaning agent.
Once the surface is thoroughly cleaned, we recommend that full-surface priming be applied with **CL 809**.

Maintenance
For regular maintenance, use **CL 803** cleaning agent combined with **CL 802** (scale) and **CL 810** (grease).

TYPE OF STRUCTURE



NATURAL STONE

TYPE OF STRUCTURE:

- **PE 201, PE 202 PRIMER**
- **AD 530 OR AD 550 ADHESIVE**
- **GF DRY OR GFS FLEXIBLE JOINTING MATERIAL**
- **SI SILICONE SEALANT + PES POLYETHYLENE SEPARATOR**

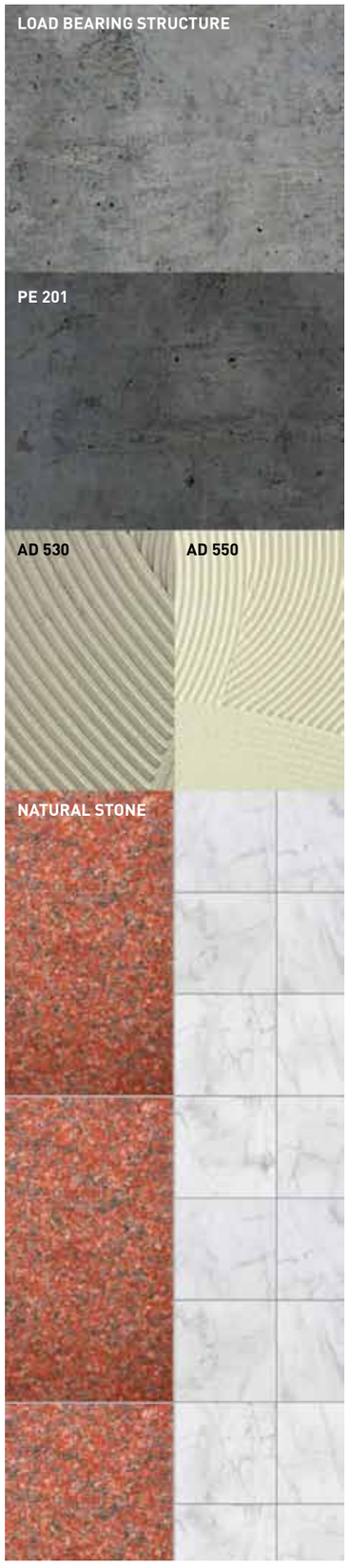
When laying natural stone slabs, caution must be exercised when selecting the material to be installed. The choice depends on the structure of the stone, as the structure is the quality that determines whether the material will be responsive or unresponsive to coloration.

WORK PROCEDURE – DETAILED DESCRIPTION

Preparation: The base must be rigid, cured, free of any impurities and uneven spots. In the event of any problems in these areas, use **LE 21** for full-area levelling of walls and floors. For quick localized repairs, use **MO 35 QUICK**.
Priming absorbent bases: All absorbent bases must be primed with **PE 201**. For extremely absorbent materials, use **PE 202** at the required diluted ratio (approx. 1:3-5). Approx. 0.15-0.25 l/m^2 of the product is needed.
Stone lining installation: Modified flexible adhesive sealants must be used while installing stone slabs, to be chosen in accordance with the responsiveness of the stone to the color of the base. For unresponsive materials (granite), we use C2TES1 grade **AD 530** cement adhesive; for responsive material (marble, lime, quartz) we use white C2TES1 grade **AD 550** adhesive. We recommend applying the buttering-floating method in order to ensure no cavities develop at the stone/base interface. Between 4 to 5.5 kg/m^2 of sealant is needed.
Stone surface jointing: Once the adhesive has fully cured, CG2WA grade **GF DRY** cement adhesive, supplied in the full color spectrum of 24 colors, is used for full-area jointing of the surface. We recommend that the color of the jointing material match that of the stone. When used on heavily loaded bases, we recommend using the quick drying CG2WA S1 grade **GFS** product, which has increased transversal deformation properties. Approx. 0.4-0.8 kg/m^2 is needed.

Cleaning and maintenance
Cleaning depends on the type of stone. For regular maintenance, use the **CL 803** cleaning agent.

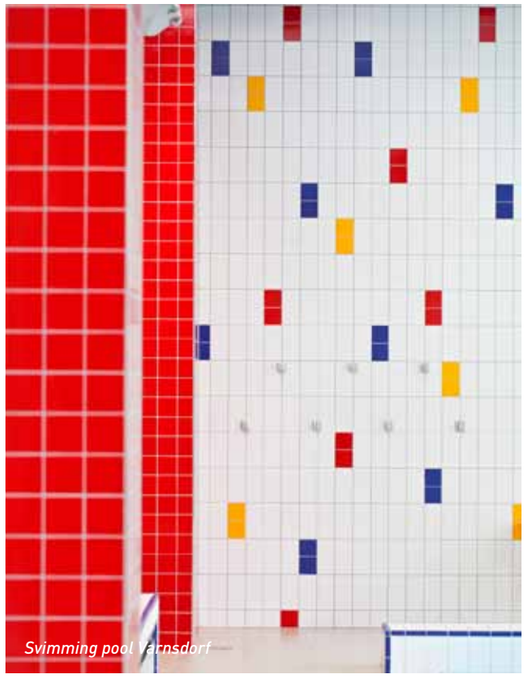
TYPE OF STRUCTURE



RAKO®
SYSTEM

REFERENCES


Balconies Liberec


Swimming pool Varnsdorf


Shopping center


Aquapark Jindřichův Hradec

Dressing-room swimming pool Varnsdorf

Autosalon Praha

Kitchen

Sprots facility Neubrandenburg

CLASSIFICATION OF ADHESIVES ACCORDING TO EN 12004+A1

Adhesives for tiling elements are divided into three types according to the manufacturing material base:

- **C** cement
- **D** dispersion
- **R** from reactive resins

Each type can have different classes into which it is assigned based on different characteristics:

- **1** standard adhesive for normal use (adhesion in all prescribed environments min. 0.5 MPa)
- **2** improved adhesive for demanding use (adhesion in all prescribed environments min. 1.0 MPa)

- **F** quick-curing (after 6 hours min. 0.5 MPa)
- **T** adhesive with reduced slip (slip max. 0.5 mm using standard ceramic elements with absorption ⩽ 0.5%)
- **E** adhesive with extended curing time – open time (adhesion min. 0.5 MPa after 30 minutes from application of adhesive to standard base)
- **S1** deformable adhesive (deflection in the range ⩾ 2.5 mm and < 5 mm)
- **S2** highly deformable adhesive (deflection ⩾ 5 mm)

CLASSIFICATION OF GROUTING MATERIALS ACCORDING TO EN 13888

Grouting materials for tiling elements are divided into two types according to the manufacturing material base:

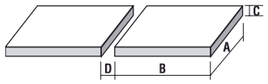
- **CG** cement
- **RG** from reactive resins

Cement grouting materials (mortars) can be classified into different classes based on additional characteristics:

- **1** normal grouting material (mortar)
- **2** improved grouting material (mortar) – meets requirements for additional characteristics:
- **A** high abrasion resistance (⩽ 1000 mm³)
- **W** reduced water absorption (after 30 minutes ⩽ 2g; after 240 minutes ⩽ 5g)

Formula for calculation of grouting material consumption

$$\frac{A + B}{A \times B} \times C \times D \times k = kg/m^2$$

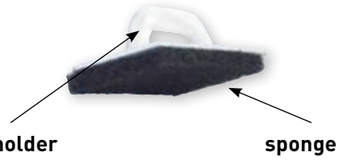


A = tiling length in mm
B = tiling width in mm
C = tiling thickness in mm
D = grout width in mm
k = bulk weight value in g/cm³ (1.60)

jointing gum for GE, GE EASY (hard)

jointing gum for GFS (medium hard)

tools for GE



tools for AD 540