OPTIMIX®

奥迪美®

MANUAL FOR TILING

SOLUTION, SPECIFICATION & INSTALLATION



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OPTIMIX®

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OPTIMIX®
DRY MORTARS SPECIALIST

Advanced Dry Mortars Technology

Optimix is the market leader within the region in the field of high-performance Dry Mortar products. Combining our professional expertise and comprehensive knowledge on construction materials together with the latest European manufacturing technology, Optimix develops continuously high performance and innovative products to provide the most durable and sustainable materials solutions for the building and the construction industry meeting the fast moving quality and greener demands.

Optimix aims to provide the highest quality products and reliable systems for our customers. With our earnest approach for excellence products manufacturing and efforts put into environmental issues, Optimix has been accredited for ISO9001, ISO14001, Product Certifications (PCCS-TA and PCCS-RM), Green Label, etc for our products.

On top of a wide range of high performance products, our professional technical and sales teams provide all the supports to ensure guaranteed customer satisfaction on using our products in their projects.

Characteristics of Our Advanced Dry Mortar Products

- High Performance
- Outstanding Properties
- Environmental Friendly
- Innovative and Sustainable

ISO9001:2008
Certification No.: CC2170

ISO14001:2004
Certification No.: CC5041

HKGLS Code
No. GL-008-008
Certification No. HK 02097

Hong Kong Q-Mark
Product Scheme
Licence No. T232-DG

QSPS-TA
complies with
PCCS-TA Scheme and BS EN 12004:2007
Certificate No.: CC 5310-P

Product Certification
Registered Firm
Certificate No.: P0026

International Standards

Wall and Floor finishes with marbles, stones or tiles are one of the modern designs in many architects' masterpieces, which need technologies to make each layers to be compatible and perform. Standards EN 12004, and EN 13888 have been launched in Europe in the past decade, and have been then adopted in Asia to standardize and classify the performances of different tile adhesives and tile grouts respectively. They are the core materials for wet fixing solutions on walls and floors in the construction industry.

Cementitious and Dispersion Adhesives for tiles: EN 12004

SYMBOL	CHARACTERISTIC		REQUIREMENT
C	Mixture of hydraulic binders, aggregates, fillers and organic additives		Mix with water or latex
D	Mixture of aqueous organic binders, organic additives and mineral fillers		Ready-To-Use
1	Normal adhesive	Tensile adhesion strength @ 28 days	≥0.5 N/mm^2 Note
2	Improved adhesive	Tensile adhesion strength @ 28 days	≥1.0 N/mm^2 Note
F	Fast setting adhesive	Early tensile adhesion strength@ 6 hours	≥0.5 N/mm^2
T	Adhesive with reduced slip	Downward movement of a tile on a vertical panel	≤0.5 mm
E	Adhesive with extended open time	Tensile adhesion strength @ open time 30 min	≥0.5 N/mm^2
S1	Deformable	Transverse deformation of a hardened adhesive	2.5 - 5 mm
S2	Highly deformable	Transverse deformation of a hardened adhesive	≥5 mm

NOTE: Common criteria for tensile adhesion strengths under: standard condition, water immersion, freeze-thaw cycle and heat aging; (≥0.5 N/mm^2 @ Open Time 20 min)

Cementitious Grouts for tiles: EN 13888

SYMBOL	CHARACTERISTIC		REQUIREMENT
CG	Mixture of hydraulic binders, aggregates, fillers, inorganic and organic additives		Mix with water or latex
CG1	Normal cement grout	Abrasion resistance (A), compressive and flexural strengths (CS & FS), shrinkage (S), water absorption (W; @30 min & 240 min)	A: ≤2000 mm^3 CS & FS: ≥15 & 3.5 N/mm^2 Note S: ≤2 mm/m, W: ≤5g & ≤10g
CG2	Improved cement grout		CG1+A: ≤1000 mm^3 CG1+W: ≤2g & ≤5g

NOTE: CS & FS have common criteria for tests under: dry storage and freeze-thaw cycles.

Disclaimer: Technical details and recommendations contained in this manual correspond to the best of our experience and knowledge, all the information must be taken as merely indicative and subject to confirmation after long-term practical applications. Anyone who intends to use the product must ensure beforehand that it is suitable for the expected application and purpose. In all cases and conditions, the user alone is fully responsible for any consequences deriving from the use of the product.

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Product Portfolio for OPTIMIX Tile Adhesives and Tile Grouts

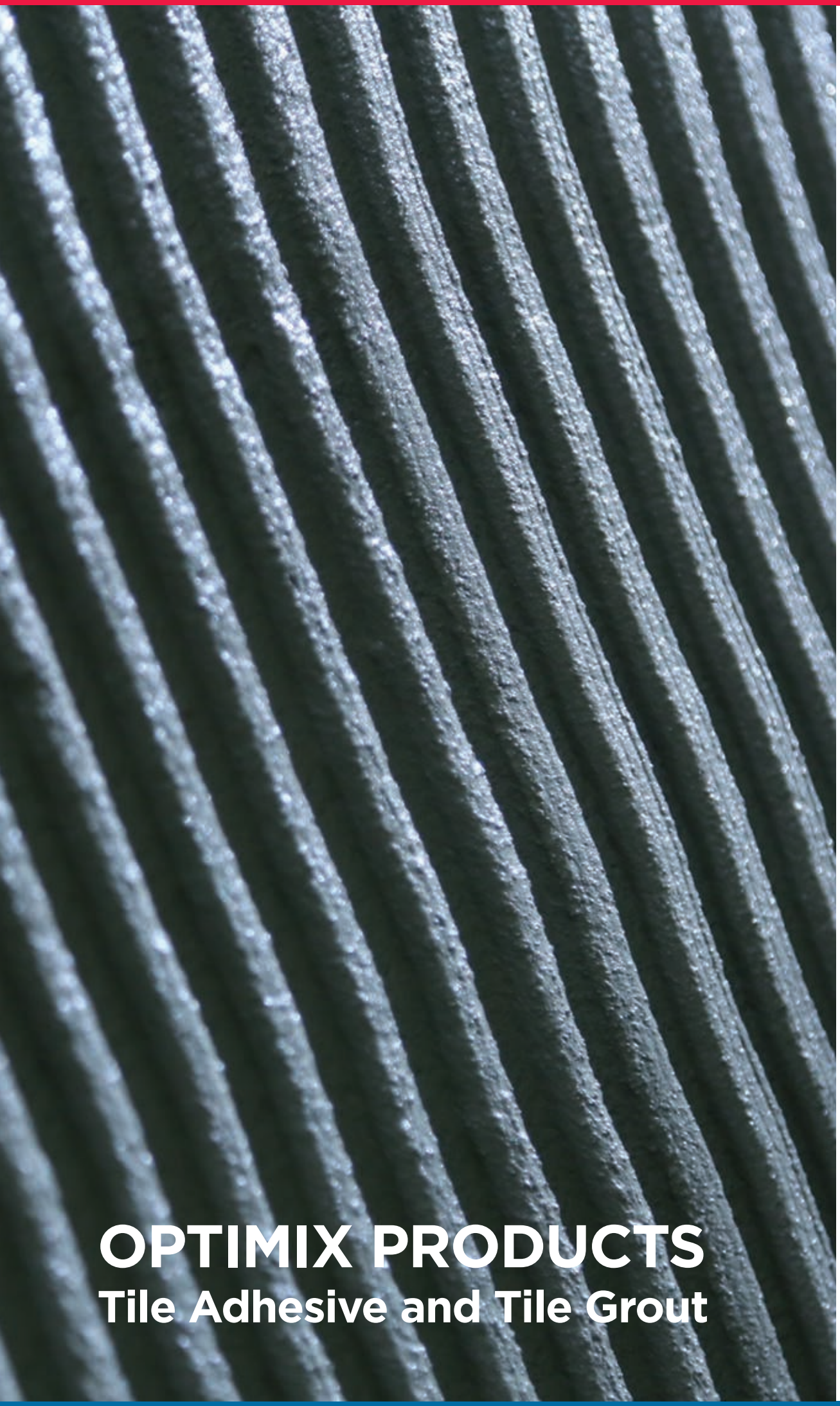
OPTIMIX® Tile Adhesives and **OPTIMIX® Tile Grouts** provide a comprehensive series of products and systems to achieve various tiling works with durable performances in the construction industry.

Cementitious Adhesives

OPTIMIX PRODUCT	TYPE	DESCRIPTION	COLOUR
TA313 Tile Adhesive (Semi-Flexible)	C1T/C1TE	Cementitious adhesive with reduced slip and extended open time	Grey or White
TA314 Tile Fix and Grout	C1	Cementitious adhesive for general mosaic tiling	Broad range
TA328 Tile Adhesive (Flexible)	C2TE	Enhanced cementitious adhesive with reduced slip and extended open time	Grey or White
TA329 Tile Adhesive (Fast Set)	C2FT	Cememtitious fast set adhesive with reduced slip	Grey or White
TA338 Tile Adhesive (High Performance)	C2TE/S2	Highly flexible enhanced cementitious adhesive with reduced slip and extended open time	Grey or White
TA398 Tile Adhesive (Two-Component)	C2TE/S2	2-part highly flexible enhanced cementitious adhesive with reduced slip and extended open time	Grey or White
TA302 Thin Joint Adhesive Mortar	Cementitious	Cementitious adhesive for ALC block installation	Grey
TA303 In-Fill Flowable Adhesive	Cementitious	Fluid adhesive grout	Grey or White
TA312 Tile Adhesive (General Purpose)	Cementitious	Single component paste mortar	Grey or White
DB391 Rapid-Setting Adhesive Slurry	Cementitious	Adhesive slurry for OPTIMIX DB390 Rapid-Setting Semi-Dry Bedding Mortar	Grey

Cementitious Grouts

OPTIMIX PRODUCT	TYPE	DESCRIPTION	COLOUR
TG410F/ TG410/ TG410C Tile Grout	ANSI A118.6	Single component normal performance multicolour cementitious tile grout	Broad range
TG410E/ TG410ES Tile Grout (High Performance)	CG2 WA	Single component high performance multicolour cementitious tile grout	Broad range



OPTIMIX PRODUCTS

Tile Adhesive and Tile Grout

OPTIMIX TA313 Tile Adhesive (Semi-Flexible)

Single component semi-flexible cementitious adhesive for standard installations of tiles and stones complied with Class C1T of BS EN 12004

Product descriptions

OPTIMIX TA313 Tile Adhesive (Semi-Flexible) is a polymer modified cement-based adhesive for fixing tiles and stones. Simply mix with water, it becomes a strong adhesive with good workability for fixing homogeneous, porcelain, ceramic and mosaic tiles with small to medium sizes on walls and floors at exterior and interior locations.

OPTIMIX TA313S is empowered to work with additional efflorescence resistance.

OPTIMIX TA313 White complied to C1TE of BS EN 12004 is accredited with HKCI Product Conformity Certification Scheme – Tile Adhesive (PCCS-TA).

Product features

Ingredients: cement, graded sands and additives
Colours: grey and white
Packaging: 25 kg bag dry powder
Water demand: 6.0 – 6.5 L
Pot life*: approx. 60 min
Coverage*: approx. 1.27 kg/m^2/mm

Technical properties*

Tensile adhesion strength: 1.0 MPa
Open time: 0.8 MPa at 20 min
Slip resistance: 0.4 mm
VOC Content: Low

Shelf life: 12 months



OPTIMIX TA314 2-In-1 Tile Fix and Grout

Single component cementitious adhesive and grout for standard installations of mosaic tiles and stones complied with Class C1 of BS EN 12004

Product descriptions

OPTIMIX TA314 2-In-1 Tile Fix and Grout is a polymer modified cement-based adhesive and grout for fixing and grouting tiles and stones. Simply mix with water, it becomes a high performance mortars for fixing and grouting various paper mounted mosaic tiles on walls and floors at exterior and interior locations. Tinted with various pigments, it can be used to achieve various colour pointing.

OPTIMIX TA314S is empowered to work with additional efflorescence resistance.

Product features

Ingredients: cement, graded sands and additives
Colours: grey and white; and other colours
Packaging: 25 kg bag dry powder
Water demand: 5.8 – 6.2 L
Pot life*: approx. 60 min
Coverage*: approx. 1.3 kg/m^2/mm

Technical properties*

Tensile adhesion strength: 1.0 MPa
Open time: 0.5 MPa at 20 min
Water absorption: Low

Shelf life: 12 months



**Laboratory values under standard conditions for general reference only. They may be various from actual, subjected to ambient conditions.*



OPTIMIX TA328 Tile Adhesive (Flexible)

Single component flexible cementitious adhesive for enhanced installations of tiles and stones complied with Class C2TE of BS EN 12004

Product descriptions

OPTIMIX TA328 Tile Adhesive (Flexible) is a high quality polymer modified cement-based adhesive for fixing tiles and stones. Simply mix with water, it becomes a high strength flexible adhesive with extended open time and slip resistance for fixing homogeneous, porcelain, ceramic and mosaic tiles and stones with medium sizes on walls and floors at exterior and interior locations.

OPTIMIX TA328S is empowered to work with additional efflorescence resistance.

OPTIMIX TA328 White complied to C2TE of BS EN 12004 is accredited with HKCI Product Conformity Certification Scheme – Tile Adhesive (PCCS-TA).

Product features

Ingredients: cement, graded sands and additives
Colours: grey and white
Packaging: 25 kg bag dry powder
Water demand: 5.5 – 6.0 L
Pot life*: approx. 60 min
Coverage*: approx. 1.3 kg/m^2/mm

Technical properties*

Tensile adhesion strength: 1.7 MPa
Open time: 0.7 MPa at 30 min
Slip resistance: 0.2 mm
Reaction to fire: Class A1
VOC Content: Low

Shelf life: 12 months



OPTIMIX TA329 Tile Adhesive (Fast-set)

Single component cementitious adhesive for fast installations of tiles and stones complied with Class C2FT of BS EN 12004

Product descriptions

OPTIMIX TA329 Tile Adhesive (Fast-set) is a high quality polymer modified cement-based adhesive for fast installations of tiles and stones. Simply mix with water, it becomes a fast-set, high strength flexible adhesive with slip resistance for fixing homogeneous, porcelain, ceramic and mosaic tiles and stones with medium sizes on walls and floors at exterior and interior locations.

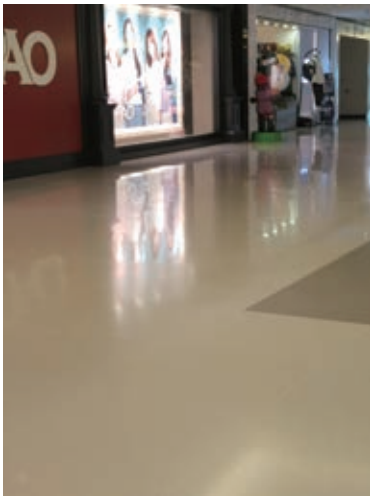
Product features

Ingredients: cement, graded sands and additives
Colours: grey and white
Packaging: 25 kg bag dry powder
Water demand: 5.5 – 6.0 L
Pot life*: approx. 20 min
Coverage*: approx. 1.4 kg/m^2/mm

Technical properties*

Early adhesion strength: 0.5 MPa (6 hours)
Tensile adhesion strength: 2.5 MPa
Open time: 1.8 MPa at 10 min
Slip resistance: <0.5 mm
(BS EN 12002)

Shelf life: 6 months



**Laboratory values under standard conditions for general reference only. They may be various from actual, subjected to ambient conditions.*

OPTIMIX TA338 Tile Adhesive (High Performance)

Single component highly flexible cementitious adhesive for premium installations of tiles and stones complied with Class C2TE S2 of BS EN 12004

Product descriptions

OPTIMIX TA338 Tile Adhesive (High Performance) is a high quality polymer modified flexible cement-based adhesive for fixing tiles and stones. Simply mix with water, it becomes a high flexible adhesive with extended open time and slip resistance for fixing homogeneous, porcelain, ceramic and mosaic tiles and stones with medium to large sizes on walls and floors at exterior and interior locations. High flexibility of adhesive allows tiling works on pre-casted concretes and locations subjected to moderate thermal movement or vibration.

OPTIMIX TA338S is empowered to work with additional efflorescence resistance.

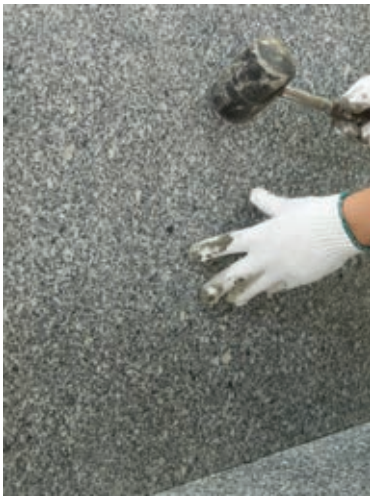
Product features

Ingredients: cement, graded sands and additives
Colours: grey and white
Packaging: 25 kg bag dry powder
Water demand: 5.3 – 5.7 L
Pot life*: approx. 60 min
Coverage*: approx. 1.4 kg/m^2/mm

Technical properties*

Tensile adhesion strength: 2.0 MPa
Open time: 0.6 MPa at 30 min
Slip resistance: <0.5 mm
Transverse Deformation: ≥5 mm (BS EN 12002)

Shelf life: 12 months



OPTIMIX TA398 Tile Adhesive (Two-Component)

Two component flexible cementitious adhesive for premium installations of tiles and stones complied with Class C2TE S2 of BS EN 12004

Product descriptions

OPTIMIX TA398 Tile Adhesive (Two-Component) is a liquid polymer modified cement-based flexible adhesive for fixing tiles and stones. Simply mix with designed polymer dispersion, it becomes a highly flexible adhesive with extended open time and slip resistance for fixing homogeneous, porcelain, ceramic and mosaic tiles and stones with large sizes on walls and floors at exterior and interior locations. Without additional of water, it offers an option for installing moisture sensitive tiles, stones and marbles.

Product features

Ingredients: cement, graded sands, additives and liquid latex
Colours: grey and white
Packaging: 25 kg bag dry powder and 8 kg drum emulsion
Pot life*: approx. 60 min
Coverage*: approx. 1.4 kg/m^2/mm powder

Technical properties*

Tensile adhesion strength: 1.7 MPa
Open time: 0.9 MPa at 30 min
Slip resistance: <0.5 mm
Transverse Deformation: ≥5 mm (BS EN 12002)

Shelf life: 12 months



**Laboratory values under standard conditions for general reference only. They may be various from actual, subjected to ambient conditions.*

OPTIMIX TA303 In-fill Flowable Adhesive

Single component cementitious adhesive slurry for back filling tiles, stones, and panels

Product descriptions

OPTIMIX TA303 In-fill Flowable Adhesive is a highly fluid polymer modified cement-based adhesive slurry for back filling voids behind wall tile and stone panels. It has a flowable consistency with high penetration power to fill voids and cracks. Coupled with simple pre-treatments of spot bonding and joint sealing, it offers alternative solution to install large sizes of wall tile and stone panels without voids and costly mechanical anchoring system. This grade can be considered for remedial solution for hollow structures found behind finished wall tile or stone systems.

Product features

Ingredients: cement, graded sands, and additives
Colours: grey and white
Packaging: 25 kg bag dry powder
Water demand: 5.3 – 5.7 L
Pot life*: approx. 10 – 15 min
Coverage*: approx. 1.5 kg/m^2/mm powder

Technical properties*

Tensile adhesion strength: 1.7 MPa
Flowability: approx. 270 mm
Application: Tools for grouting or injection

Shelf life: 12 months



OPTIMIX DB391 Rapid-Setting Adhesive Slurry

Single component pourable cementitious fast-setting adhesive slurry for fixing floor tiles, stones, and marbles on formulated semi-dry bedding mortar

Product descriptions

OPTIMIX DB391 Rapid-Setting Adhesive Slurry is a single component, polymer modified, high early strength cementitious slurry for installation of tiles, stones and marbles on **OPTIMIX DB390 Rapid-setting Semi-dry Bedding Mortar**. Simply mix with water, it becomes a pourable adhesive slurry with high penetration power. Grouting can be achieved 2 hours after tiling works.

System of **OPTIMIX DB390N Semi-dry Bedding Mortar** and **OPTIMIX DB391N Adhesive Slurry** offers normal-setting solutions.

Product features

Ingredients: cement, graded sands, and additives
Colours: grey and white
Packaging: 25 kg bag dry powder
Water demand: 5.5 – 6.0 L
Pot life*: approx. 25 min
Coverage*: approx. 1.5 kg/m^2/mm

Technical properties*

Tensile adhesion strength: 1.0 MPa (6 hrs)
Tensile adhesion strength: 2.5 MPa
Time for grouting: Min. 2 hour after tiling

Shelf life: 6 months



**Laboratory values under standard conditions for general reference only. They may be various from actual, subjected to ambient conditions.*

OPTIMIX TG410 Tile Grout

Single component multicolour cementitious tile grout for grouting wall and floor tile joints complied to ANSI A118.6.

Product descriptions

OPTIMIX TG410 Tile Grout is a polymer modified cement-based tile grout for joint width up to 6 mm on wall and floor. Simply mix with water, it becomes a smooth paste for sealing tile joint at interior and exterior locations. Low shrinkage and low water absorption offer outstanding sealing and mechanical performances. Good resistance to mould growth allows long lasting outlook under humid conditions.

OPTIMIX TG410EF is empowered for grouting at narrow joints, and **OPTIMIX TG410C** is supporting wide joints.

OPTIMIX TG410S is empowered to work with additional efflorescence resistance.

Product features

Ingredients: cement, fillers and additives
Colours: 24 standards
Packaging: 25 kg bag dry powder
Pot life*: approx. 45 min

Technical properties*

Water absorption: 5% (28 day; 50% RH to wet) and 7% (28 day; Wet to dry)
Linear shrinkage: 0.09% (1 day) and 0.13% (7 day)
Resistance to mould growth: Good

Shelf life: 12 months



OPTIMIX TG410E Tile Grout (High Performance)

Single component multicolour high performance cementitious tile grout for grouting wall and floor tile joints complied to Class CG2 WA of BS EN 13888

Product descriptions

OPTIMIX TG410E Tile Grout (High Performance) is an enhanced grade of polymer modified cement-based tile grout for joint width up to 6 mm on wall and floor. Simply mix with water, it becomes a smooth paste for sealing tile joint at interior and exterior locations. Low shrinkage and low water absorption offer outstanding sealing and mechanical performances. Good resistance to mould growth and wearing resistance allow long lasting outlook and function under extreme conditions.

OPTIMIX TG410ES is empowered to work with additional efflorescence resistance, ideally for wet areas.

Product features

Ingredients: cement, fillers and additives
Colours: 24 standards
Packaging: 25 kg bag dry powder
Pot life*: approx. 45 min

Technical properties*

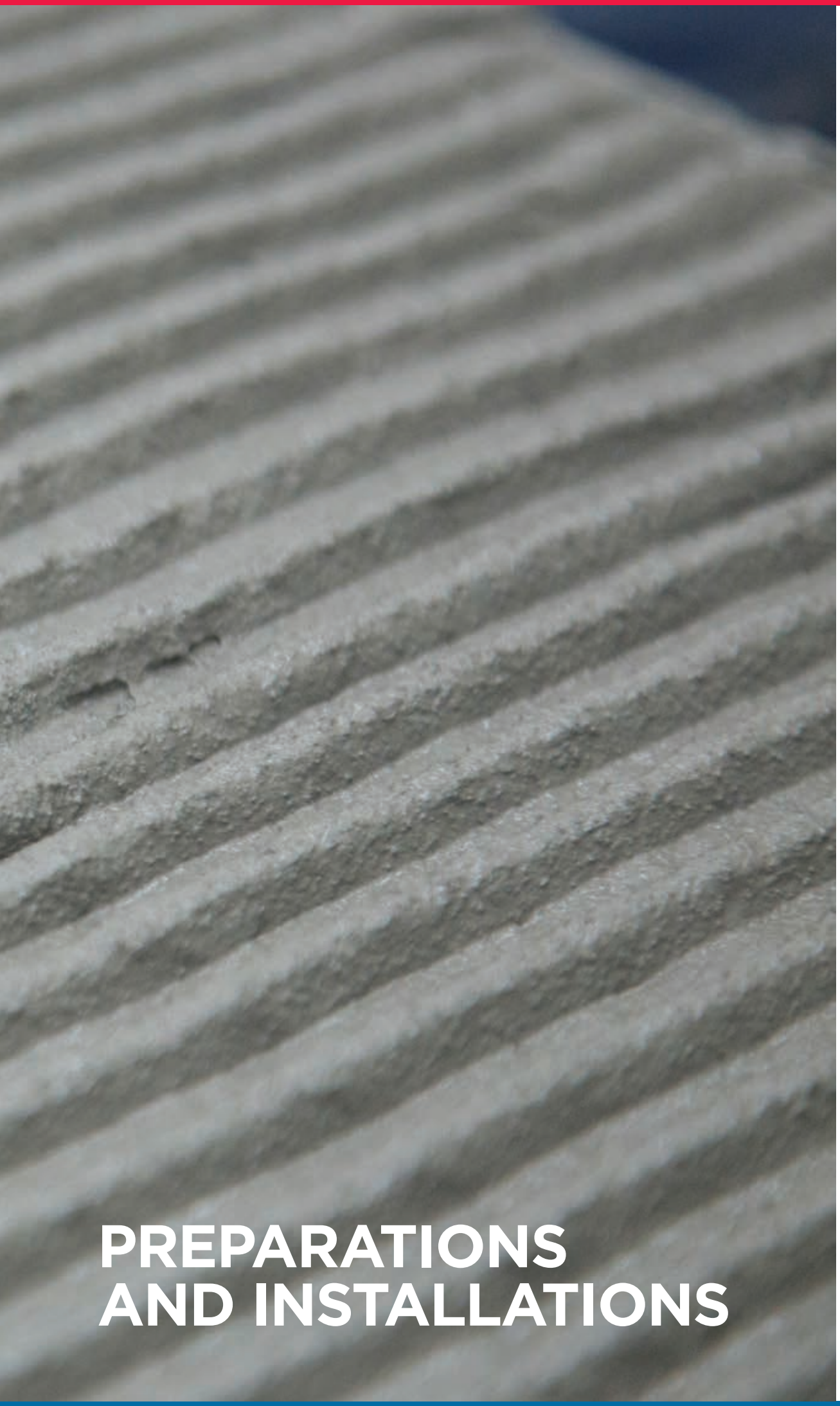
Abrasion resistance: 143 mm^3
Compressive strength: 30 MPa (Dry storage)
Flexural strength: 6 MPa (Dry storage)
Water absorption: 0.8g (after 30 min)
Linear shrinkage: ≤1.4 mm/m
Resistance to mould growth: Good

Shelf life: 12 months



**Laboratory values under standard conditions for general reference only. They may be various from actual, subjected to ambient conditions.*





PREPARATIONS AND INSTALLATIONS

Substrate Preparation

Concrete substrates should be sound, fully cured, and dimensionally stable with proper condition and period of 28 days. Protrusion, crack or honeycomb areas should be properly repaired with appropriated material and approaches. Any loose (e.g. salt deposits), contaminants (e.g. dust, debris, oil, grease, paint, chemicals) and purposeless materials (e.g. nail, bolt) should be fully removed. Contractor should not start works until full correction of defects with acceptance.

Broom and water jet should be used to achieve effective cleaning purpose on the substrate surface before receiving materials. Substrate should be moistened one night before and also at the time before the installation. Remove all excess water and allow the surface to become practically dry before works. Protect the work area from rain and direct sunshine during the installation.

Protect the work area from impacts during installation, e.g. rain, strong wind, direct sunshine, and so on. If necessary, erect tentage and maintain temporary drainage system to ensure proper application and curing conditions.

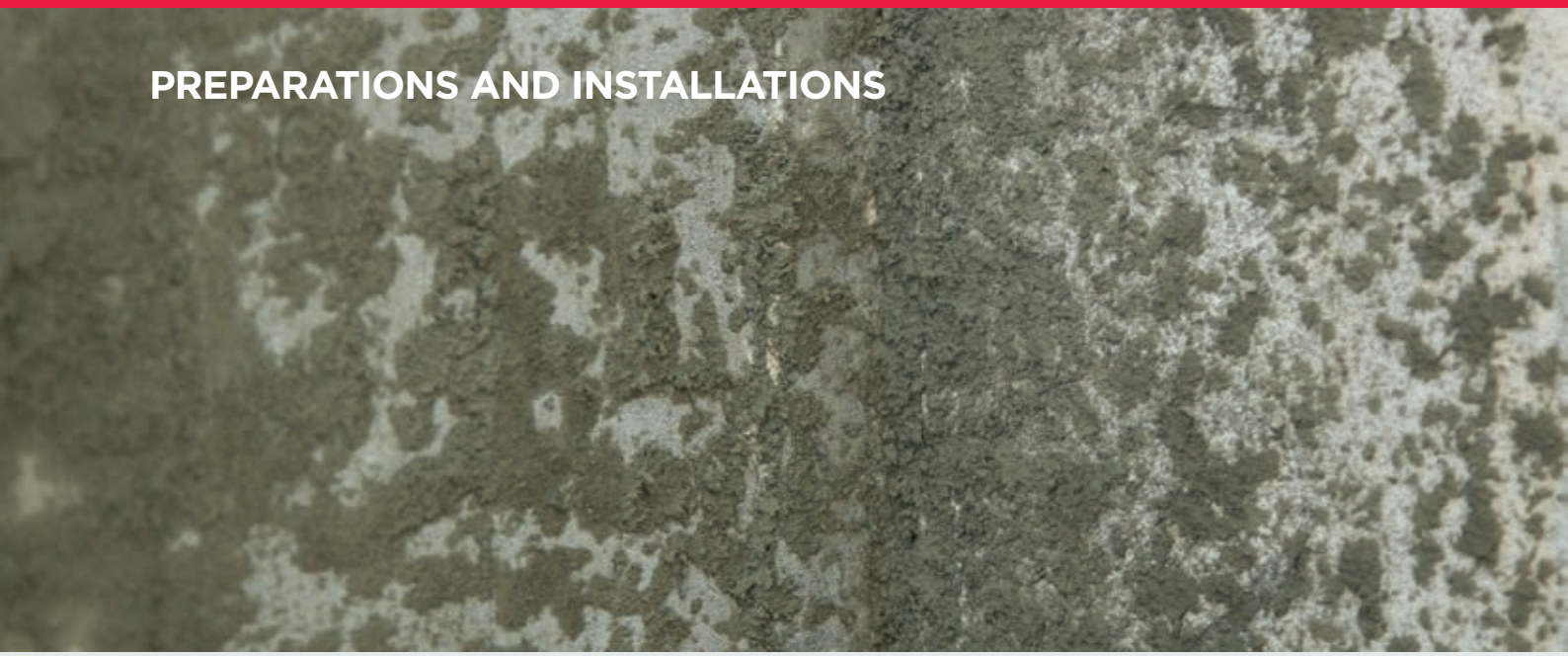
Material Preparation

Pre-packed materials should be matured by mixing at designed mixing ratio, and blended by using an electrical mixer at low speed to prevent air entrapment and friction heat from affecting the materials. Do not over mix the materials. Avoid rapid water evaporation and heat, cover the blended material with a lid inside the container and finish the material within pot life.

Liquid part at designed quantity, e.g. water or latex, should be firstly placed in a round and clean container. Powder part should be then added into the liquid part, and blended instantaneously with electrical mixer (equipped with right paddle type).

Partial mixing of pre-bagged material is not suggested avoiding inaccurate material mixing. Materials, no matter for products and encounter parts, should be quantified by appropriate means, e.g. electronic balance for weight or measuring cup for volume.





Substrate Treatment

Spatterdash

Spatterdash (also called splash coat) is applied on vertical surface of substrates for providing mechanical keys for wall render to adhere. It can be primed with bonding agent for adhesion enhancement before receiving render, especially on substrate with high degree of surface smoothness and density achieved by metal concrete framework. Kindly note spatterdash would not yield the same result as bonding agent.

Thoroughly dampen substrate surface with clean water, and allow excess water to drain away prior to applying spatterdash.

Prepare spatterdash in the following ratio:	
OPTIMIX Procrete	1 kg
Water	1 – 1.5 kg
Portland Cement	5 kg
Sand	10 kg

NOTE: Proportions of Procrete and water can be adjusted accordingly to achieve desired consistency and performance, subjected to qualities (e.g. moisture content, aggregate size, etc.) of cement sand mix. Procrete should be diluted with water in advance, and should be added into pre-blended cement sand mix for further mixing to achieve workable consistency.

Mix the materials thoroughly for approx. 3 min by using electrical mixer (low speed) until a lump free and homogenous mixture is obtained. Finish the mix within pot life of approx. 60 min, subject to ambient conditions.

Spatterdash should be applied by using conventional method and workmanship to achieve density and strength as specified. In case of necessary and unfavorable conditions, water can be sprayed on the hardened and dried spatterdash for curing after it has been applied 6 – 8 hours.

NOTE: Do not overdose water for curing on hardened and dried spatterdash to avoid reduction in adhesion strength.

Spatterdash should be well cured at least 7 days and having sufficient strength prior to receiving next coat.

Bonding Agent

Bonding agent (also called: bond coat slurry) is applied on vertical and horizontal surfaces of substrates for enhancing adhesions of wall render and floor screed onto concrete substrates. Some of the cases would apply primer coat for bond enhancement and surface consolidation for floor bedding. Bonding agent can be applied alone on substrates without spatterdash. In case of spatterdashed substrate, spatterdash should be well cured prior to receiving bonding agent.



1 Mix bonding agent



2 Apply by roller



3 Apply by brush

Prepare bonding agent in the following ratio:	
OPTIMIX Procrete	1 kg
Portland Cement	1.5 kg

Thoroughly dampen substrate surface with clean water, and allow excess water to drain away prior to applying bonding agent.

Mix the materials thoroughly for approx. 3 min by using electrical mixer (low speed) until a lump free and homogenous mixture is obtained. Finish the mix within pot life of approx. 60 min, subject to ambient conditions.

Apply a thin layer of bonding agent onto surface of the substrate with a brush or a roller. Install the wall render or floor screed when bonding agent is still wet and tacky.

NOTE: Do not install wall render or floor screed on completely dried bonding agent. Re-apply the slurry coat if necessary.

Instead of cementitious bonding agent, primer may be considered for bond enhancement and surface consolidation in some of flooring works. Primer, i.e. OPTIMIX SF80, should be diluted with water (1:3 by volume). Prime the substrate 2-3 runs by brush or roller, and allow to dry before laying bedding material.



Substrate Bedding and Levelling

Wall Render and Floor Screed

Wall render and floor screed are used to level and align the substrate surfaces to reach a desired levels on wall and floor for facilitating next works and system installations as specified, including waterproofing, tile adhesives for fixing tiles and marbles, skimcoats for wall receiving paints and wall papers, self-levelling floor screeds for receiving carpet, vinyl sheet, and so on.

Thoroughly dampen substrate surface or spatterdash with clean water, and allow excess water to drain away prior to applying wall render. In case of bonding agent as specified, wall render should be installed on wet and tacky bonding agent, which has been applied on substrate or cured spatterdash in advance.

NOTE: Render applied on dried bonding agent may result in debonding.

Prepare wall render in the following ratio:

BASE PLASTER	WATER DEMAND
OPTIMIX BP126: 40 kg bag	6.5 – 7.5 L
OPTIMIX BP138: 40 kg bag	6.5 – 7.5 L
OPTIMIX BP168: 40 kg bag	6.3 – 7.0 L

NOTE: Wall render can be applied by spray machine, subject to machinery, setup and tools. Contractors should achieve site trial in advance to confirm suitability and performance as specified.

Mix the materials thoroughly for approx. 3 – 5 min by using electrical mixer (low speed) until a lump free and homogenous mixture is obtained. Finish the mix within pot life of approx. 60 min, subject to ambient conditions. For materials with high polymer dosage, leave the mix to rest for approx. 3 min and re-stir (for approx. 30 sec) prior to application.

For spray plastering, it is necessary to check suitability of machinery and make sure proper condition of parts in advance. Desired material consistency with stable output must be achieved for continuous application in trial.



Wall Render



1 Add dry powder into water



2 Mix wall render



3 Apply by hand trowel



4 Level with straight edge

Wall render should be applied at average thickness of 15 mm – 20 mm per coat. In case of thick application, it may be necessary to proceed in 2 or 3 operations to ensure proper adhesion of the render to the wall substrate. Render surface should be left coarse to provide key adhesion for further coat of render, or subsequent tiling system, while it should be smoothened to receive skim coat and paint finish systems.

Average setting time of 24 hours is necessary for each installed layer prior to further layer of render, subjected to ambient conditions.

NOTE: For thickness of >40 mm, non-oxidizing and anti-alkaline mesh reinforcement is recommended for promising adhesion of the render system.

Finish the render surface with an aluminum straight edge, flat trowel or other appropriate tools, and allow it to cure properly for at least 7 days prior to next work steps.

In case of necessary and unfavorable conditions, water can be sprayed on the hardened and dried render on the first 2 days for curing, subject to ambient conditions.

NOTE: Avoid excess dosage and pressure of water on hardened and dried render to prevent the performance of render from being affected.



Substrate Bedding and Levelling

Floor Screed

Thoroughly dampen substrate surface with clean water, and allow excess water to drain away prior to applying floor screed. In case of bonding agent as specified, floor screed should be installed on wet and tacky bonding agent, which has been applied on substrate in advance. In case of primer as specified, floor screed should be applied on dried primer.

NOTE: Screed applied on dried cementitious bonding agent may result in debonding.

Prepare floor screed in the following ratio:

FLOOR SCREED	WATER DEMAND
OPTIMIX FS151: 40 kg bag	4.5 – 5.5 L
OPTIMIX FS161: 40 kg bag	4.5 – 5.5 L
OPTIMIX FS191: 12.5 kg bag	4.5 – 6.0 L
OPTIMIX FS192: 7.0 kg bag	7.8 – 8.4 L
OPTIMIX RM780: 25 kg bag	3.5 – 4.1 L (flowable)

Mix the materials thoroughly for approx. 3 – 5 min by using electrical mixer (low speed) until a lump free and homogenous mixture is obtained. Finish the mix within pot life of approx. 60 min (approx. 5 – 20 min for fast setting screed), subject to ambient conditions.

Installation of flowable rapid setting screed







Floor Screed

Installations of trowellable and semi-dry screeds



1 Mix semi-dry screed



2 Apply semi-dry screed



3 Apply trowellable screed



4 Compact floor screed



5 Level floor screed



6 Apply angle fillet

Floor screed should be applied at average thickness of 10 mm – 50 mm (25 mm – 150 mm for light weight screed). It should be applied and compacted to solid and rigid structure with desired thickness. Finish the screed with an aluminum straight edge or a wooden float to the correct fall and direction, and allow it to cure properly for at least 7 days prior to next work steps.

NOTE: For laying over ground facilities, e.g. cable pipe, and so on, non-oxidizing and anti-alkaline mesh reinforcement is recommended. In case of necessary or coupling to waterproofing system, angel fillet should be prepared at the junction of wall and floor by using same bedding material.

Fast setting flowable screed can generally achieve 50 mm in single application. Aggregate should be applied in the flowable screed for thickness application up to 250 mm.

In case of necessary and unfavorable conditions, water can be sprayed on the hardened and dried screed in the first few days for curing, subject to ambient conditions. Cover the screed surface with a vapour barrier (polyethylene sheet) in order to avoid the fast evaporation of the water and the consequent cracks risk, if necessary.

NOTE: Avoid excess dosage of water on hardened and dried screed to prevent the performance of screed from being affected.



OPTIMIX Tile Adhesives

Installation of Tile and Stone

Tile Adhesives (also called: ceramic tile adhesive; CTA) are applied on vertical and horizontal surfaces of concrete or bedding mortars (and back-buttering tiles and stones) for installation (or wet-fixing) of tiles, marbles, stones and panels.

Thoroughly dampen substrate surface with clean water, and allow excess water to drain away prior to tiling works. Tiles should be clean, and the back should be sound and free from any materials or contaminants affecting the performance of adhesives.

Prepare tile adhesives in the following ratio:

TILE ADHESIVES - DRY POWDER	DESIGNED LIQUIDS
OPTIMIX TA313: 25 kg bag	6.0 - 6.5 L Water
OPTIMIX TA314: 25 kg bag	5.8 - 6.2 L Water
OPTIMIX TA328: 25 kg bag	5.5 - 6.0 L Water
OPTIMIX TA329: 25 kg bag	5.5 - 6.0 L Water
OPTIMIX TA338: 25 kg bag	5.3 - 5.7 L Water
OPTIMIX TA398: 25 kg bag	8.0 L Liquid Latex
OPTIMIX TA303: 25 kg bag	5.3 - 5.7 L Water
OPTIMIX DB391: 25 kg bag	5.5 - 6.0 L Water



Mix the materials thoroughly for approx. 3 – 5 min by using electrical mixer (low speed) until a creamy, lump free and homogenous mixture is obtained. Leave to rest for approx. 3 min and re-stir (for approx. 30 sec) prior to application. Blended material should be kept in a pot with cover, away from direct sunshine, and finished within 45 – 60 minutes (10 – 15 min for fast-setting products), subject to ambient conditions.

Installation of Tile and Stone

Installations of tiles



1 Add dry powder into water or latex



2 Mix adhesive



3 Apply by notched trowel



4 Tile installation

Installations of large tiles and stone pieces



5 Back buttering



6 Back buttering with notched trowel



7 Stone installation



8 Firm installation using rubber hammer

Notched trowel should be used to apply tile adhesive onto the substrates. Choose a right trowel that allows for complete coverage of the tile back, and no air void. Spread an initial thin layer of tile adhesive on the substrates using the flat side of the trowel. Then, apply the desired thickness of tile adhesive using notched side. For large tiles, stone pieces, or necessary, it is also essential to apply a thin coat of tile adhesive to the back of the tiles (back-buttering).

NOTE: General size of notched trowel can be ranged from 6mm x 6mm to >10mm x 10mm, depending on the type and size of the tile. For mosaic tiles, 4mm x 4mm can be considered, subjected to tile specification.]

For adhesive covering tile grout application, i.e. mosaic fix and grout, adhesive paste should be applied on substrate, and compacted into joints on the back of tiles (with paper mounted on the tile surface).

Fix the tiles within open time of 20 min (within 5 min for fast-setting products), and ensure film does not form on the surface of the spread adhesive, which should stay fresh prior to tiling.

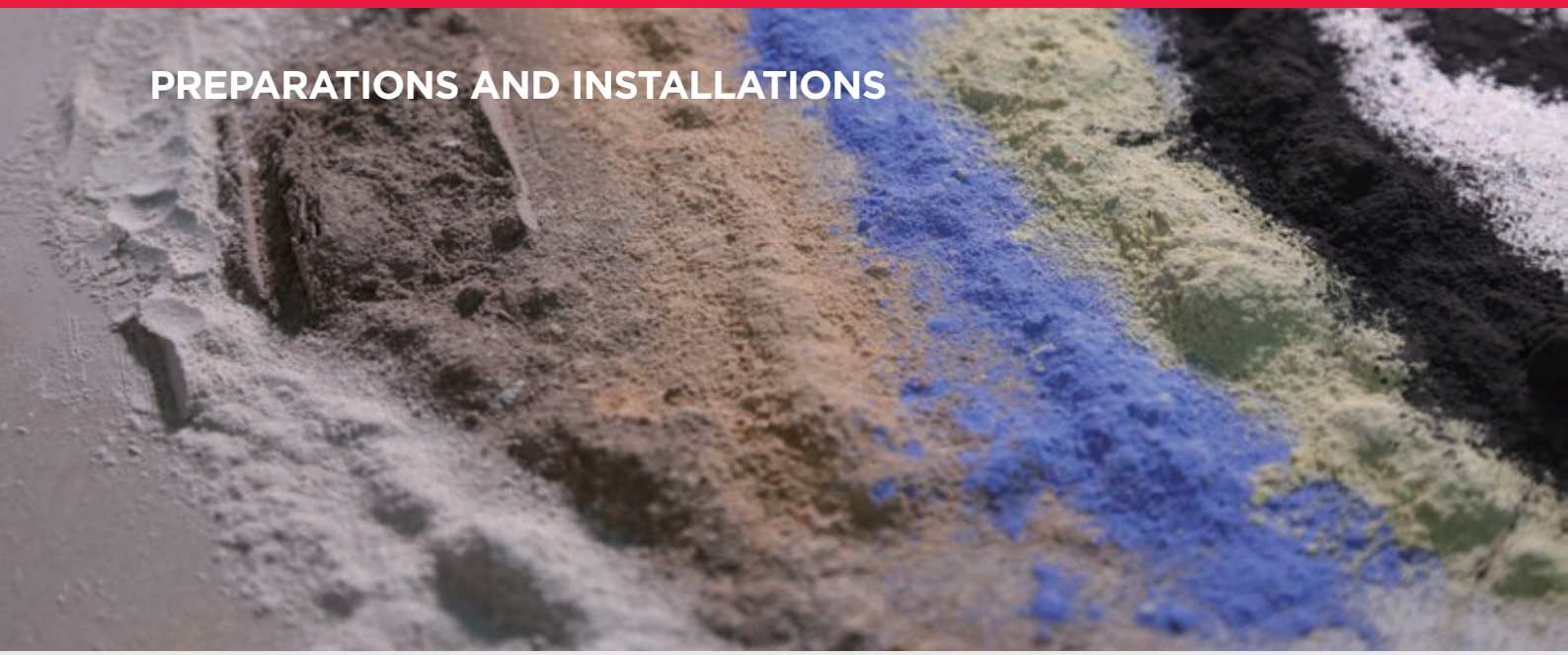
NOTE: Unfavorable weather conditions or a highly absorbent substrate can reduce the open time, even to just a few minutes. If necessary, remove the dried adhesive and re-apply with fresh adhesive. Do not wet the adhesive with water once film has formed.

Install the tiles firmly into prepared position; gentle adjustment of tile position should be done within 5-30 minutes. Use dampened sponge to gentle clean the excess adhesive from the tile surface.

NOTE: Surface paper-mount can be moderately dampened and removed after tile adhesive set for 2 – 4 hours, subjects to ambient conditions. Excess water in cleaning and paper removal will cause poor adhesive performance.

Protect the finished surface from rain and water spillage before grouting the joints. Grouting should be done at least 1 day after tiling works (approx. 2 – 6 hours for fast-setting adhesives).

Movement joints should be designed by architects and engineers to accommodate movement in large continuous finished areas or between sections of buildings. Tiling works should not cover or interrupt the joint functions. Site trial should be achieved for confirming the capabilities and compatibilities of elastic sealant, backing-rod, and the tendency of staining to the finishes.



OPTIMIX Tile Grouts

Grouting

Tile Grouts are used to seal the gaps between tiles for protecting the underneath tiling and plastering systems, blocking the passage of water, and achieving visual purposes.

Thoroughly dampen surface with clean water, and allow excess water to drain away prior to grouting works. Tiles should be firmly installed with clean and dry surfaces.

Prepare grouts in the following ratio:	
TILE ADHESIVES - DRY POWDER	WATER DEMAND
OPTIMIX TG410: 25 kg bag	5.8 - 6.2 L
OPTIMIX TG410C: 25 kg bag	5.0 - 5.5 L
OPTIMIX TG410F: 25 kg bag	7.3 - 7.7 L
OPTIMIX TG410S: 25 kg bag	5.8 - 6.2 L
OPTIMIX TG410E: 25 kg bag	5.0 - 5.5 L
OPTIMIX TG410ES: 25 kg bag	5.0 - 5.5 L

NOTE: Consistent water mixing is essential for consistent colour between batch mixing. Depending on the colour, check the water demand in accordance with indication on paper bag.

Mix the materials thoroughly for approx. 3 – 5 min by using electrical mixer (low speed) until a creamy, lump free and homogenous mixture is obtained. Leave to rest for approx. 3 min and re-stir (for approx. 30 sec) prior to application. Blended material should be kept in a pot with cover, away from direct sunshine, and finished within 30 – 45 min, subject to ambient conditions.



Grouting the Tile and Stone



1 Apply by rubber trowel



2 Spread grout over tiles



3 Clean grouted surface with wet sponge



4 Finish surface without trace

Apply tile grout to the tiled area with a rubber trowel or other suitable tool diagonally over the tiles. Force and compact maximum amount of grout deep into the joints, and preliminarily finish the grout with level and smooth surfaces. Excess grout on the tiles should be wiped away diagonally by using rubber trowel.

Allow the grout to dry for approx. 5 – 30 minutes (or surface set to slightly dry and hard), depending on ambient temperature and humidity. Use a dampened cloth or sponge to clean the tile surface immediately before the grout fully set. During cleaning, excess water must be removed by using a sponge and replace the sponge when full of excess grout. No traces of grout should be left after cleaning.

NOTE: Excess water in cleaning will cause colour inconsistency and poor performance.

Protect the finished surface from rain and water spillage for at least 24 hours. Allow installation to cure for at least 1 week before filling the pool with water.

NOTE: Acidic cleaner is not recommended for surface cleaning to avoid damage and colour deviation. Confirmation from cleaner manufacturer and site trial on a small area are highly necessary prior to full applications.



MATERIAL SPECIFICATIONS

Material Specifications

Plastering and tiling works shall be carried out in accordance with project specification, and achieved by experienced subcontractors or applicators, who shall be approved by main contractor.

Each component of the systems shall be supplied from the same manufacturer, accredited with the quality standards of ISO 9001 and environmental management of ISO 14001, unless approved by the architects, to ensure the compatibility and overall effectiveness.

Materials shall be either ready-mixed or pre-packed at designed ratio, and shall be kept in store under appropriate conditions. At the time before application, materials shall be matured by mixing at designed mixing ratio and blending as instructed. Procedure and application shall be achieved in accordance with manufacturer's specifications.

EMULSIONS

OPTIMIX Procrete is a liquid polymer dispersion, which consists of milky styrene butadiene co-polymer designed for use as a bonding agent, spatterdash and for various modification of mortars. It can be used as an addition to improve mechanical strengths of cement mixes and mortars for wall and floor.

It shall comply with the following physical properties and mechanical performance:		
Polymer type	-	: Styrene Butadiene Rubber
Appearance	-	: Aqueous white
VOC content	: USEPA Method 24	: ≤10 g/L
Compressive strength 7-day	: HKHA MTS (2006) Spec. Pt D Cl.2.1.1	: >40 MPa
Compressive strength 28-day	: HKHA MTS (2006) Spec. Pt D Cl.2.1.1	: >45 MPa
Bond strength 7-day	: HKHA MTS (2006) Spec. Pt D Cl.2.1.14	: >1 MPa
Bond strength 28-day	: HKHA MTS (2006) Spec. Pt D Cl.2.1.14	: >2 MPa
Bond strength 28-day (pull-off)	: HKHA MTS (2006) Spec. Pt D Cl.2.1.15	: ≥1.5 MPa

OPTIMIX SF80 is a liquid polymer dispersion, which consists of milky acrylate co-polymer designed for surface sealing treatment and bond enhancement on wall and floor. It has high penetration into various substrates, and is compatible with various cementitious and gypsum-based materials, e.g. concrete, mortars, bricks, gypsum blocks, render, screed, self-levelling compound, repair mortars, and so on.

It shall comply with the following physical properties and mechanical performance:		
Polymer type	-	: Styrene Acrylate
Appearance	-	: Aqueous white
VOC content	: USEPA Method 24	: ≤5 g/L
Application mode of SF80	: Dilution with water from 1 : 1 to 1 : 3 by volume or weight ratio	

BASE PLASTERS

OPTIMIX BP126 Base Plaster (Regular) is a single component, proprietary pre-mixed, pre-bagged, polymer modified wall plaster for hand and spray applications. It is designed for interior and exterior wall plastering, general filling and profile leveling with good mechanical properties for subsequent tiling or wall finishing works.

It shall comply with the following physical properties and mechanical performance:		
Compressive/ Flexural strength at 28-day	: BS EN 1015-11	: 15 MPa / 4.5 MPa
Bond strength on concrete at 28-day	: HKHA MTS (00/02) Spec. Pt D Cl.2.1.15	: 1.0 MPa
Water retentivity	: BS 4551 : Pt 1 : 1998	: 99%
VOC content	: USEPA Method 24	: <10 g/L
Chloride ion content	: BS 1881 : Pt 124 : 1988 Cl 10.2	: <0.01%
Typical thickness per coat	-	: 5 – 20 mm (max. 25 mm)
Application mode for BP126	: Addition of water only for hand trowel and spray application.	

OPTIMIX BP138 Base Plaster (Waterproof) is a single component, proprietary pre-mixed, pre-bagged, polymer modified wall plaster for hand and spray applications with high water resistance. It is designed for interior and exterior wall plastering, general filling and profile leveling for subsequent tiling or wall finishing work with good water resistance and mechanical properties.

It shall comply with the following physical properties and mechanical performance:		
Compressive / Flexural strength at 28-day	: BS EN 1015-11	: 13 MPa / 3.5 MPa
Bond strength on concrete at 28-day	: HKHA MTS (00/02) Spec. Pt D Cl.2.1.15	: 1.0 MPa
Water absorption	: BS 1881 : Pt 122 : 1983 (AMD 6108)	: ≤1.0%
Water impermeability	: JC/T 894 : 2001 (App A)	: 0.7 MPa
Water retentivity	: BS 4551 : Pt 1 : 1998	: 99%
VOC content	: USEPA Method 24	: <10 g/L
Typical thickness per coat	-	: 5 – 20 mm (max. 25 mm)
Application mode for BP138	: Addition of water only for hand trowel and spray application.	

OPTIMIX BP168 Premium Base Plaster is a single component, proprietary pre-mixed, pre-bagged, polymer modified wall plaster for hand and spray applications with high good water resistance and mechanical strength. It is designed for interior and exterior wall plastering with low water absorption, general filling and profile leveling for subsequent tiling or wall finishing work.

It shall comply with the following physical properties and mechanical performance:		
Compressive / Flexural strength at 28-day	: BS EN 196-1	: 21 MPa / 6.0 MPa
Tensile adhesion strength (standard)	: HKHA MTS (00/02) Spec. Pt D Cl.2.1.15 Mod.	: 2.0 MPa
Tensile adhesion strength (water immersion)	: HKHA MTS (00/02) Spec. Pt D Cl.2.1.15 Mod.	: 1.5 MPa
Tensile adhesion strength (heat aging)	: HKHA MTS (00/02) Spec. Pt D Cl.2.1.15 Mod.	: 2.0 MPa
Tensile adhesion strength (freeze-thaw)	: HKHA MTS (00/02) Spec. Pt D Cl.2.1.15 Mod.	: 1.5 MPa
Water absorption	: BS 1881 : Pt 122 : 1983	: 0.7%
Water retentivity	: BS 4551 : Pt 1 : 1998	: 99%
Typical thickness per coat	-	: 5 – 20 mm (max. 25 mm)
Application mode for BP168	: Addition of water only for hand trowel and spray application.	



FLOOR SCREEDS

OPTIMIX FS151 Floor Screed is a single-component, proprietary pre-mixed, pre-bagged polymer modified shrinkage compensated floor screed. It is suitable for interior or exterior works for general filling and profile leveling for subsequent tiling or other finishing with low shrinkage and good mechanical strengths. It should be compatible with latex modified bond coat or primer.

It shall comply with the following physical properties and mechanical performance:		
Compressive / Flexural strength at 28-day	: BS EN 196-1	: 30 MPa / 6.0 MPa
Bond strength to concrete at 28-day	: HKHA MTS (00/02) Spec. Pt D Cl.2.1.15	: 1.5 MPa
Compressive strength at 28-day	: CS 1	: >30 MPa @ density > 1900 kg/m^3
Typical thickness	-	: 10 – 50 mm
Application mode for FS151	: Addition of water only	

OPTIMIX FS161 Waterproofing Floor Screed is a single-component, proprietary pre-mixed, pre-bagged polymer modified shrinkage controlled floor screed with high water resistance. It is suitable for interior or exterior works for general filling and profile leveling for subsequent tiling or other finishing with low shrinkage and good mechanical strengths. It should be compatible with latex modified bond coat or primer.

It shall comply with the following physical properties and mechanical performance:		
Compressive / Flexural strength at 28-day	: BS EN 196-1	: 22 MPa / 5.0 MPa
Bond strength to concrete at 28-day	: HKHA MTS (00/02) Spec. Pt D Cl.2.1.15	: 1.0 MPa
Water absorption after 30-min	: BS EN 120808-5	: <0.8g
Water absorption after 240-min	: BS EN 120808-5	: <1.3g
Initial surface absorption test	: BS 1881 : Part 208 : 1996	: 0.02 ml/(m^2·s)
Typical thickness	-	: 10 – 50 mm
Application mode for FS161	: Addition of water only	

OPTIMIX DB390 Rapid-Setting Semi-Dry Bedding Mortar is a fast-setting, single-component, proprietary pre-mixed, pre-bagged cementitious low-shrinkage semi-dry bedding mortar for conventional laying tiles and stone. It shall couple to formulated adhesive slurry, and ultimately provide solid bedding and good adhesion strength for internal and external floor tiling works. It should be compatible with latex modified bond coat or primer.

It shall comply with the following physical properties and mechanical performance:		
Fresh consistency after mix	: Compactable semi-dry solid	
Compressive / Flexural strength at 2-hour	: BS EN 196-1	: 10 MPa / 2 MPa
Chloride ion content	: CS 1 : 1990	: <0.01%
Compressive strength at 1-day / 7-day/ 28-day	: BS EN 196-1	: >25 MPa / >35 MPa / >43 MPa
Bond strength at 7-day	: HKHA MTS (00/02) Spec. Pt D Cl.2.1.3	: >0.5 MPa
Application mode for DB390	: Addition of water only. Allow bedding, alignment and tiling in single-run with DB391	



TILE ADHESIVES

OPTIMIX TA313: Tile Adhesive (Semi-Flexible) is a single-component, proprietary pre-mixed, pre-bagged, polymer modified, semi-flexible cementitious adhesive for interior and exterior tiling works. It has long open time, high adhesion strengths, high slip resistance, low VOC, semi-flexibility, and shall be complied with Class C1T in BS EN 12004, Class A1 in BS EN 13501-1, PCCS-TA for TA313 White. Grade S has extra anti-efflorescence property.

It shall comply with the following physical properties and mechanical performance:		
Initial tensile adhesion strength	: BS EN 1348	: 1.0 MPa
Tensile adhesion strength after heat aging / water immersion / freeze-thaw cycles	: BS EN 1348	: 0.6 MPa / 1.0 MPa / 1.0 MPa
Open time at 20-min	: BS EN 1346	: 0.8 MPa
Slip resistance	: BS EN 1308	: 0.4 mm
VOC content	: USEPA Method 24	: <10 g/L
Reaction to fire classification	: BS EN 13501-1	: Class A1
Extra anti-efflorescence	-	: TA313S
Water quality with TG410	: Complied with BS6920 and WSD Fresh Water Plumbing Quality Maintenance Recognition	
Application mode for TA313	: Addition of water only	

OPTIMIX TA328: Tile Adhesive (Flexible) is a single-component, proprietary pre-mixed, pre-bagged, polymer modified, flexible cementitious adhesive for interior and exterior tiling works. It has an extended open time, high adhesion strengths, high slip resistance, low VOC, flexible, and shall be complied with Class C2TE BS EN 12004, Class A1 in BS EN 13501-1, PCCS-TA for TA328 White. Grade S has extra anti-efflorescence property.

It shall comply with the following physical properties and mechanical performance:		
Initial tensile adhesion strength	: BS EN 1348	: 1.7 MPa
Tensile adhesion strength after heat aging / water immersion / freeze-thaw cycles	: BS EN 1348	: 1.5 MPa / 1.2 MPa / 1.7 MPa
Shear adhesion strength at 14-day	: BS EN 12004 : 2007	: 1.7 MPa
Open time at 30-min	: BS EN 1346	: 0.7 MPa
Transverse deformability	: BS EN 12002	: 2.5 mm
Reaction to fire classification	: BS EN 13501 -1	: Class A1
Slip resistance	: BS EN 1308	: 0.2 mm
VOC content	: USEPA Method 24	: <10 g/L
Extra anti-efflorescence	-	: TA328S
Application mode for TA328	: Addition of water only	



TILE ADHESIVES

OPTIMIX TA338: Tile Adhesive (High Performance) is a single component, proprietary pre-mixed, pre-bagged, polymer modified, highly flexible cementitious adhesive for interior and exterior tiling works. It has an extended open time, high adhesion strengths, high slip resistance, high transverse deformability, and shall be complied with Class C2TE/S2 in BS EN 12004/ BS EN 12002. Grade S has extra anti-efflorescence property.

It shall comply with the following physical properties and mechanical performance:		
Initial tensile adhesion strength	: BS EN 1348	: 2.0 MPa
Tensile adhesion strength after heat aging / water immersion / freeze-thaw cycles	: BS EN 1348	: 1.1 MPa / 1.1 MPa / 1.1 MPa
Transverse deformability	: BS EN 12002	: ≥5.0 mm
Open time at 20-min and 30-min	: BS EN 1346	: 0.6 MPa
Slip resistance	: BS EN 1308	: ≤0.5 mm
Extra anti-efflorescence	-	: TA338S
Application mode for TA338	: Addition of water only	

OPTIMIX TA398: Tile Adhesive (Two-Component) is a two-component, proprietary pre-mixed, pre-bagged, polymer modified, highly flexible cementitious adhesive for interior and exterior tiling works. It has an extended open time, high adhesion strengths, reduced slip resistance, high transverse deformability, and shall be complied with Class C2TE/S2 in BS EN 12004/ BS EN 12002.

It shall comply with the following physical properties and mechanical performance:		
Initial tensile adhesion strength	: BS EN 1348	: 1.7 MPa
Tensile adhesion strength after heat aging / water immersion / freeze-thaw cycles	: BS EN 1348	: 1.5 MPa / 1.0 MPa / 1.5 MPa
Transverse deformability	: BS EN 12002	: ≥5.0 mm
Open time at 20-min and 30-min	: BS EN 1346	: ≥0.9 MPa
Slip resistance	: BS EN 1308	: ≤0.5 mm
Application mode for TA398	: Addition of designed emulsion only	

OPTIMIX DB391 Rapid-Setting Adhesive Slurry is a single component, proprietary pre-mixed, pourable, fast-setting, polymer modified, pre-bagged penetrative adhesive slurry for coupling with formulated rapid-setting semi-dry screed to fix various floor stones, marbles and tiles with conventional installation technique. System of DB390N and DB391N supports normal-setting works.

It shall comply with the following physical properties and mechanical performance:		
Early tensile adhesion strength at 6-hr	: BS EN 1348	: 1.0 MPa
Initial tensile adhesion strength	: BS EN 1348	: 2.5 MPa
Tensile adhesion strength after heat aging / water immersion / freeze-thaw cycles	: BS EN 1348	: 2.5 MPa / 1.5 MPa / 1.3 MPa
Material consistency	: from paste to fluid	
Normal-setting time	: Grade N	
Application mode for DB391	: Addition of water only	



TILE GROUT

OPTIMIX TG410E Tile Grout (High Performance) is a single component, proprietary pre-mixed, pre-bagged, multicolour, anti-mould, polymer modified cementitious tile grout of Class CG2 WA in BS EN 13888. It shall have low shrinkage, low water absorption and good resistance to mould growth and wearing resistance. Grade S has extra anti-efflorescence property.

It shall comply with the following physical properties and mechanical performance:		
Abrasion resistance	: BS EN 12808-2	: 143 mm^3
Tensile adhesion strength	: BS 5980	: 1.5 kN
Compressive strength (Dry Storage)	: BS EN 12808-3, ANSI A118.6, ASTM C109	: 30 MPa
Compressive strength (Freeze-Thaw cycle)	: BS EN 12808-3, ANSI A118.6	: 25 MPa
Flexural strength (Dry Storage)	: BS EN 12808-3, ANSI A118.6	: 6 MPa
Flexural strength (Freeze-Thaw cycle)	: BS EN 12808-3, ANSI A118.6	: 5 MPa
Linear shrinkage	: BS EN 12808-4, ANSI A118.6	: ≤1.4 mm/m
Water absorption after 30-min	: BS EN 12808-5	: 0.8 g
Water absorption after 240-min	: BS EN 12808-5	: 1.5 g
Water absorption at 28d (50% RH to wet)	: ANSI A118.6	: 3%
Water absorption at 28d (Wet to Dry)	: ANSI A118.6	: 7%
Resistance to mould growth	: BS 5980	: No mould growth
Colour range	-	: Multicolour
Extra anti-efflorescence	-	: TG410ES
Application mode for TG410/TG410E	: Addition of water only	

#00 White
#10 Light Grey
#12 Grey
#14 Dark Grey
#16 Charcoal
#20 Almond
#22 Peach
#26 Orange
#30 Bone
#32 Buff
#34 Yellow
#50 Light Green
#52 Apple Green
#54 Green
#60 Opal
#62 Pink
#64 Rose
#70 Tan
#72 Chocolate
#74 Brick
#76 Brown
#80 Light Blue
#82 Blue
#90 Black

NOTE: colours are shown for general reference only.

WATERPROOFING

OPTIMIX WP515 Waterproofing Slurry (General) is a single-component, proprietary pre-mixed, pre-bagged, polymer modified cementitious waterproofing mortar slurry for withstanding negative and positive water pressure and sealing micro-cracks. It acts as a rigid and seamless damp-proof layer to waterproof concrete components, good bonding substrate before application of other moisture sensitive layers.

It shall comply with the following physical properties and mechanical performance:		
Compressive strength at 28-day	: BS 6319 : Pt 2 : 1983	: 50 MPa
Flexural strength at 28-day	: BS 6319 : Pt 3 : 1990	: 8.0 MPa
Initial surface water test at 60-min	: BS 1881 : 208	: <0.01 ml/(m^2·s)
Slant shear bond strength	: BS 6319 : Pt 4 : 1984	: ≥45 MPa
Bond strength on concrete at 14-day	: BS 8204 : Pt 3 :1998	: >1.0 MPa
Bond strength on concrete at 28-day	: HKHA MTS (00/02) Spec. Pt D Cl.2.1.15	: 1.0 MPa
Water impermeability at 28-day	: GB 18445 : 2012	: >1.0 MPa
VOC content	: USEPA Method 24	: 4 g/kg
Solvent content	: Free	
Material consistency	: from brushable to trowellable	
Application mode for WP515	: Addition of water only.	

OPTIMIX WP533 Waterproofing Slurry (Semi-flexible) is a two-component, proprietary pre-mixed, pre-bagged, cementitious semi-flexible waterproof slurry. It acts as a semi-flexible slurry coat to waterproof concrete components, and is capable to apply onto damp substrate (touch-dry). It shall has good bonding strength to all mineral and cementitious substrates subjected to positive water pressure. It should be compatible with rigid crystallized waterproofing slurry for withstanding negative water pressure, and Alkali-resistant fibreglass mesh for reinforcement.

It shall comply with the following physical properties and mechanical performance:		
Tensile strength at 28-day	: BS 2782 : Pt 3	: >1.5 MPa
Elongation at 28-day	: BS 2782 : Pt 3	: >80%
Adhesive strength at 28-day	: CEDD – 1994 Model Spec. App. 8.5 C1.6-9	: >0.8 MPa
Bond strength on concrete at 14-day	: BS 8204 : Pt 3 :1998	: >0.8 MPa
Initial surface water absorption test	: BS 1881 : Pt 208 :1996	: ≤0.005 ml/(m^2·s)
Water impermeability at 0.5MPa for 3-day	: DIN 1048 : Pt 5 Mod.	: Impermeable ; 0 mm
Water quality	: BS6920 : 2.2-2.6	: Pass
VOC content	: USEPA Method 24	: 10 g/kg
Latex to powder ratio	: 1:2.5	
Solvent content	: Free	
Fibreglass mesh reinforcement	: Applicable; ME between 2 coats	
Application mode for WP533	: Mixing with formulated latex (WP50) and powder for brush and trowel application.	

WATERPROOFING

OPTIMIX WP568 Waterproofing Slurry (Flexible) is a two-component, proprietary pre-mixed, pre-bagged, cementitious flexible waterproof slurry. It acts as a highly flexible slurry coat to waterproof concrete components, and is capable to apply onto damp substrate (touch-dry). It shall has good bonding strength to all mineral and cementitious substrates subjected to positive water pressure. It should be compatible with rigid crystallized waterproofing slurry for withstanding negative water pressure and Alkali-resistant fibreglass mesh for reinforcement.

It shall comply with the following physical properties and mechanical performance:		
Tensile strength at 28-day	: BS 2782 : Pt 3	: 1.2 MPa
Elongation at 28-day	: BS 2782 : Pt 3	: >200%
Adhesive strength at 28-day	: CEDD – 1994 Model Spec. App. 8.5 Cl.6-9	: 0.5 MPa
Initial surface water absorption at 60-min	: BS 1881: Pt 208	: ≤0.005 ml/(m^2·s)
VOC content	: USEPA Method 24	: 10 g/kg
Water impermeability at 0.5MPa for 3-day	: DIN 1048 : Pt 5	: Impermeable ; 0 mm
Latex to powder ratio	: 1:1.4	
Solvent content	: Free	
Fibreglass mesh reinforcement	: Applicable; ME between 2 coats	
Application mode for WP568	: Mixing with formulated latex (WP80) and powder for brush and trowel application.	

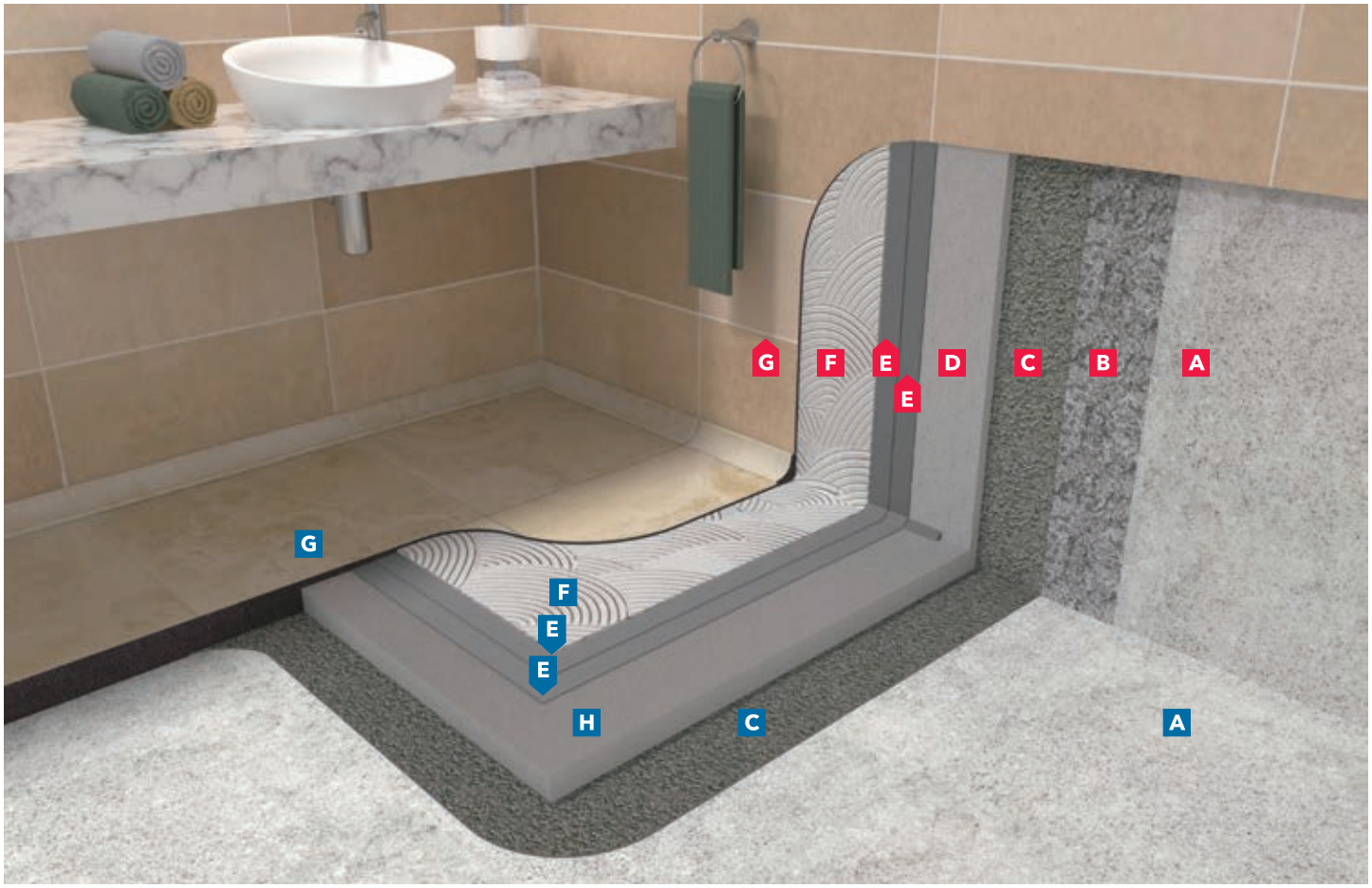
OPTIMIX ME Alkali-resistant Fibreglass Mesh is woven by fibreglass and then coated by alkali-resistant rubber. This surface treated mesh has the features of good alkali-resistance, high strength and flexibility, water resistance, resistance to corrosion and aging. OPTIMIX ME is compatible to cementitious materials and is widely used in wall reinforcement and waterproof application.

It shall comply with the following physical properties and mechanical performance:		
Unit mass	GB/T 29906	≥ 130 g/m^2
Tensile force at break	GB/T 29906	≥ 1200 N/50mm
Elongation at break	GB/T 29906	≤ 5.0 %
Elongation at break at 28-day (5% NaOH)	GB/T 29906	≥ 750 N/50mm
Tensile force retain at 28-day (5% NaOH)	GB/T 29906	≥ 50 %



SYSTEM DRAWINGS

Washroom & Wet Area



Wall

- A Concrete substrate
- B Spatterdash:
  OPTIMIX Procrete
- C Bonding agent (Optional):
  OPTIMIX Procrete
- D Wall render:
  OPTIMIX BP138 Base Plaster (Waterproof)
- E Waterproofing membrane:
  OPTIMIX WP533 Waterproofing Slurry (Semi-Flexible)
- F Tile Adhesive*:
  OPTIMIX TA313 Tile Adhesive (Semi-Flexible) OR
  OPTIMIX TA328 Tile Adhesive (Flexible)
- G Tile Grout*:
  OPTIMIX TG410E Tile Grout (High Performance)

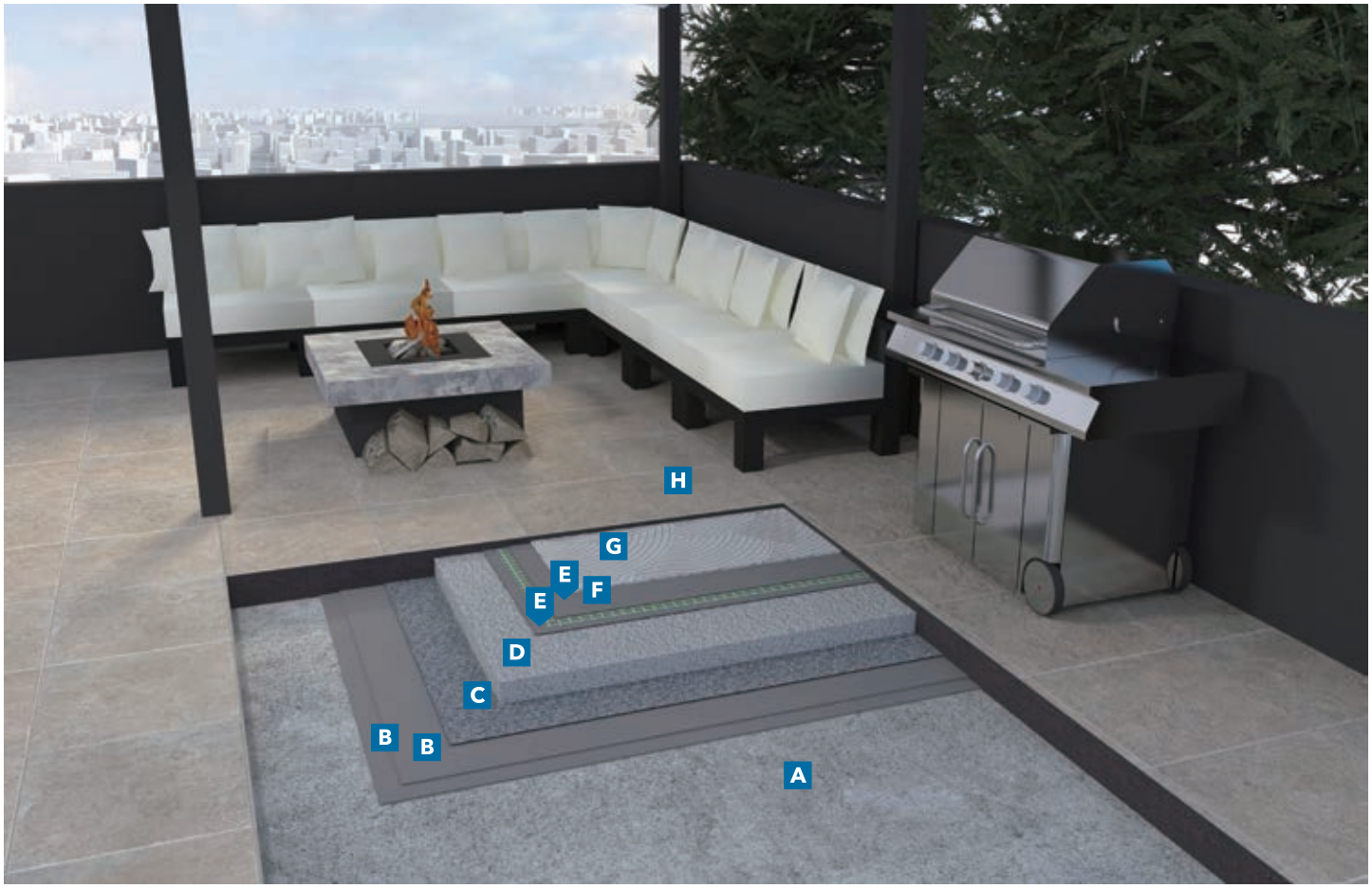
*(*Grade S offers extra anti-efflorescence)*

Floor

- A Concrete substrate
- C Bonding agent:
  OPTIMIX Procrete
- H Floor Screed:
  OPTIMIX FS161 Waterproofing Floor Screed
- E Waterproofing membrane:
  OPTIMIX WP533 Waterproofing Slurry (Semi-Flexible)
- F Tile Adhesive*:
  OPTIMIX TA313 Tile Adhesive (Semi-Flexible) OR
  OPTIMIX TA328 Tile Adhesive (Flexible)
- G Tile Grout*:
  OPTIMIX TG410E Tile Grout (High Performance)

NOTE: 1. Material system and drawing are typical example for reference only, product sequence and combination can be modified to fit every specific projects, subject to project specifications from architects and contractors. 2. Optimix WP515 should be applied on concrete substrate for withstanding negative water pressure, or where is necessary. 3. Optimix ME Alkali-resistant Fibreglass Mesh in WP membrane is necessary for extreme conditions and projects types. 4. Angle fillet should be applied before receiving WP membrane.

Roof and Exposed Area



Floor

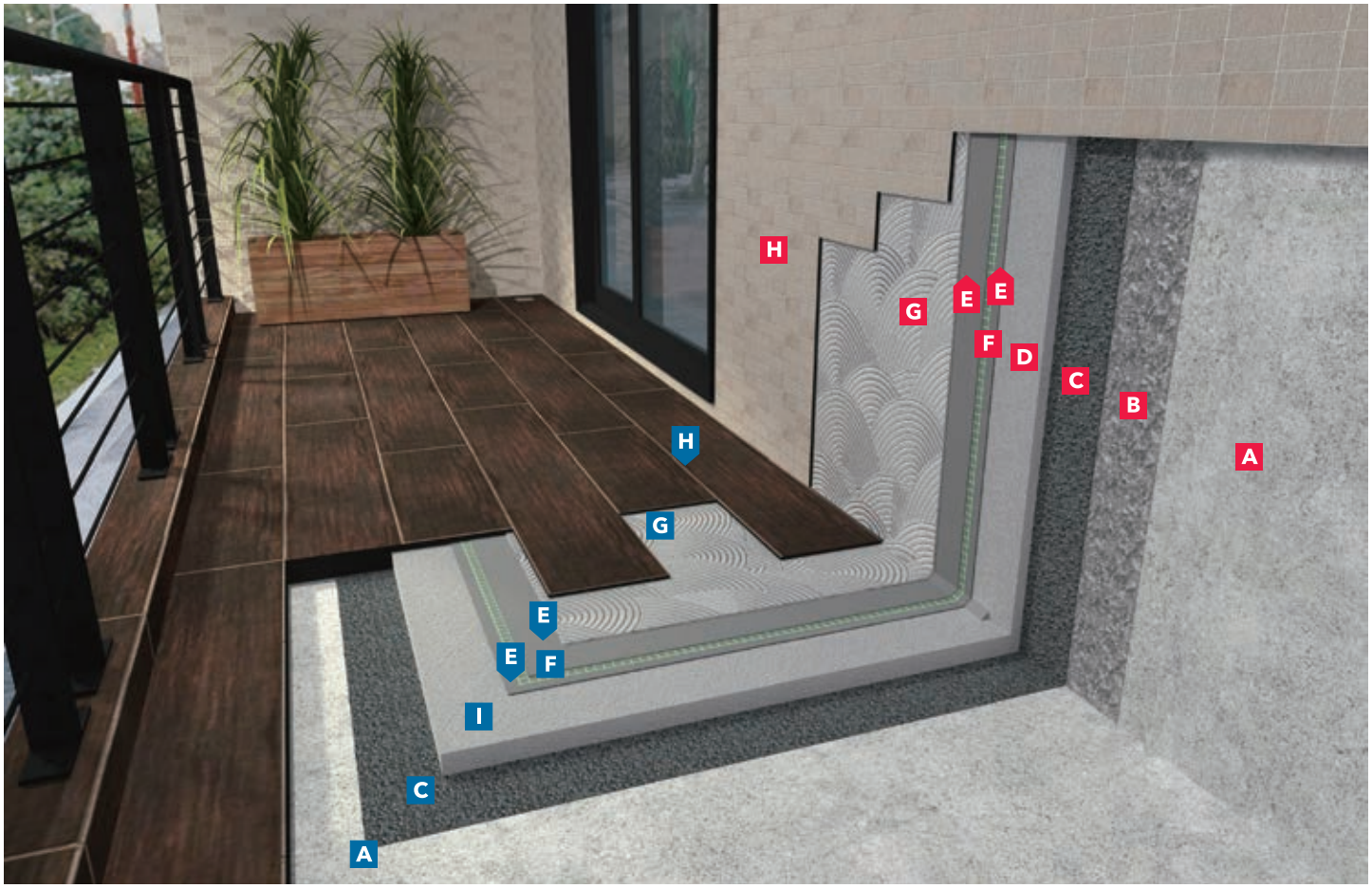
- **A** Concrete substrate
- **B** WP Treatment (Optional):
  OPTIMIX WP515 Waterproofing Slurry (General)
- **C** Bonding agent:
  OPTIMIX Procrete
- **D** Floor Screed:
  OPTIMIX FS161 Waterproofing Floor Screed
- **E** Waterproofing membrane:
- **E** **OPTIMIX WP568 Waterproofing Slurry (Flexible)**
- **F** Mesh Reinforcement (in WP membrane):
  OPTIMIX ME Alkali-resistant Fibreglass Mesh
- **G** Tile Adhesive*:
  OPTIMIX TA328 Tile Adhesive (Flexible) OR
  OPTIMIX TA338 Tile Adhesive (High Performance)
- **H** Tile Grout*:
  OPTIMIX TG410E Tile Grout (High Performance)

*(*Grade S offers extra anti-efflorescence)*

Wall (and any vertical feature)

- Concrete substrate
- WP Treatment (Optional):
  OPTIMIX WP515 Waterproofing Slurry (General)
- Spatterdash:
  OPTIMIX Procrete
- Bonding agent (Optional):
  OPTIMIX Procrete
- Wall render:
  OPTIMIX BP138 Base Plaster (Waterproof)
- Waterproofing membrane:
  OPTIMIX WP568 Waterproofing Slurry (Flexible)
- Mesh Reinforcement (in WP membrane):
  OPTIMIX ME Alkali-resistant Fibreglass Mesh
- Tile Adhesive*:
  OPTIMIX TA328 Tile Adhesive (Flexible) OR
  OPTIMIX TA338 Tile Adhesive (High Performance)
- Tile Grout*:
  OPTIMIX TG410E Tile Grout (High Performance)

Balcony



Wall

- A Concrete substrate
- B Spatterdash:
  OPTIMIX Procrete
- C Bonding agent (Optional):
  OPTIMIX Procrete
- D Wall render:
  OPTIMIX BP138 Base Plaster (Waterproof)
- E Waterproofing membrane:
  OPTIMIX WP568 Waterproofing Slurry (Flexible)
- F Mesh Reinforcement (in WP membrane):
  OPTIMIX ME Alkali-resistant Fibreglass Mesh
- G Tile Adhesive*:
  OPTIMIX TA328 Tile Adhesive (Flexible) OR
  OPTIMIX TA338 Tile Adhesive (High Performance)
- H Tile Grout*:
  OPTIMIX TG410E Tile Grout (High Performance)

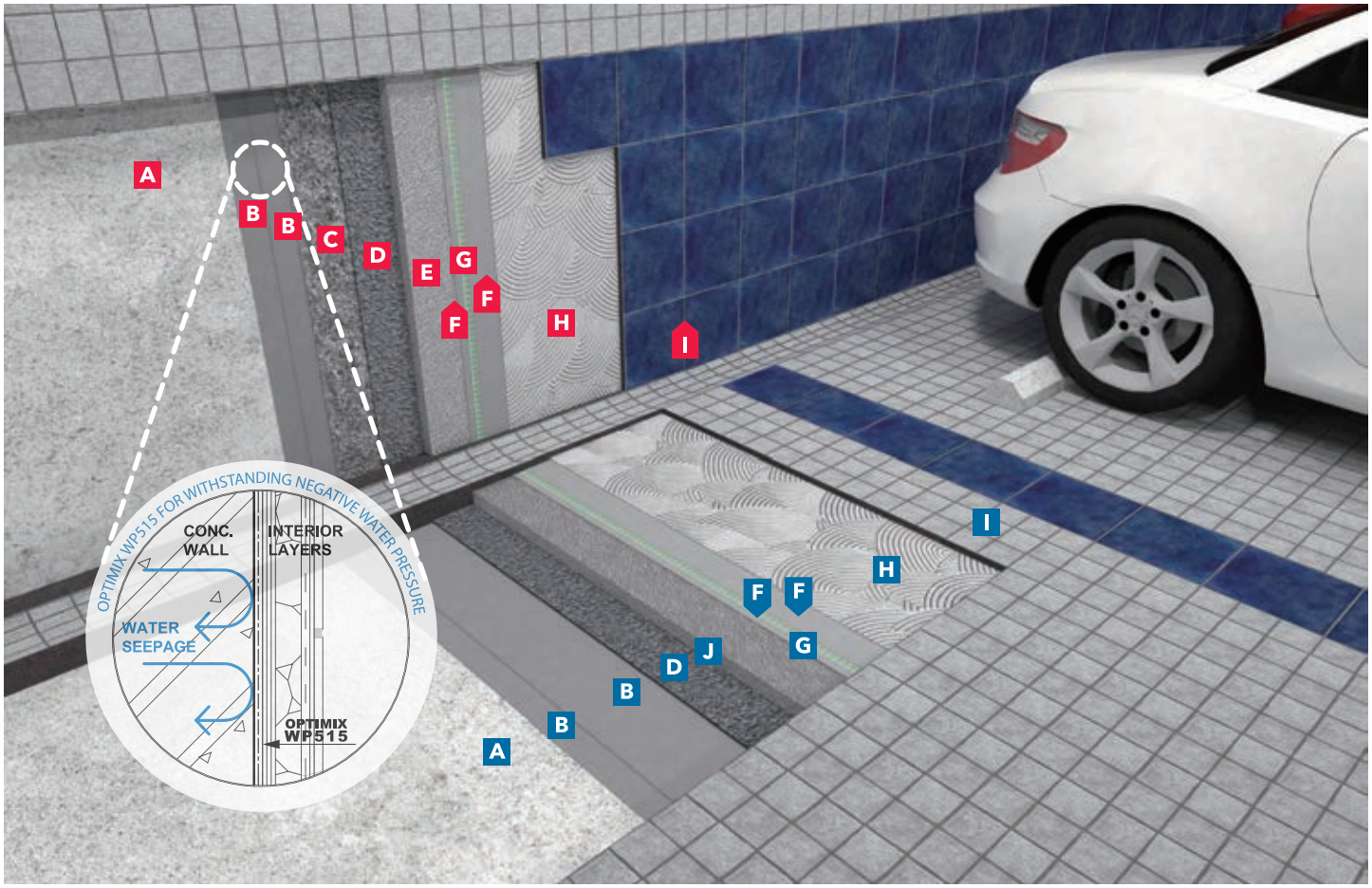
*(*Grade S offers extra anti-efflorescence)*

Floor

- A Concrete substrate
- C Bonding agent:
  OPTIMIX Procrete
- I Floor Screed:
  OPTIMIX FS161 Waterproofing Floor Screed
- E Waterproofing membrane:
  OPTIMIX WP568 Waterproofing Slurry (Flexible)
- F Mesh Reinforcement (in WP membrane):
  OPTIMIX ME Alkali-resistant Fibreglass Mesh
- G Tile Adhesive*:
  OPTIMIX TA328 Tile Adhesive (Flexible) OR
  OPTIMIX TA338 Tile Adhesive (High Performance)
- H Tile Grout*:
  OPTIMIX TG410E Tile Grout (High Performance)

NOTE: 1. Material system and drawing are typical example for reference only, product sequence and combination can be modified to fit every specific projects, subject to project specifications from architects and contractors. 2. Optimix WP515 should be applied on concrete substrate for withstanding negative water pressure, or where is necessary. 3. Optimix ME Alkali-resistant Fibreglass Mesh in WP membrane is necessary for extreme conditions and projects types. 4. Angle fillet should be applied before receiving WP membrane.

Basement & Underground Facility



Wall

- **A** Concrete substrate
- **B** WP Treatment (vs. -ve. water pressure):
  OPTIMIX WP515 Waterproofing Slurry (General)
- **C** Spatterdash:
  OPTIMIX Procrete
- **D** Bonding agent (Optional):
  OPTIMIX Procrete
- **E** Bedding: wall render:
  OPTIMIX BP138 Base Plaster (Waterproof)
- **F** Waterproofing membrane:
  OPTIMIX WP533 Waterproofing Slurry (Semi-Flexible)
- **G** Mesh Reinforcement (in WP membrane):
  OPTIMIX ME Alkali-resistant Fibreglass Mesh
- **H** Tile Adhesive*:
  OPTIMIX TA328 Tile Adhesive (Flexible) OR
  OPTIMIX TA338 Tile Adhesive (High Performance)
- **I** Tile Grout*:
  OPTIMIX TG410E Tile Grout (High Performance)

*(*Grade S offers extra anti-efflorescence)*

Floor

- **A** Concrete substrate
- **B** WP Treatment (vs. -ve. water pressure):
  OPTIMIX WP515 Waterproofing Slurry (General)
- **D** Bonding agent:
  OPTIMIX Procrete
- **J** Floor Screed:
  OPTIMIX FS161 Waterproofing Floor Screed
- **F** Waterproofing membrane:
  OPTIMIX WP533 Waterproofing Slurry (Semi-Flexible)
- **G** Mesh Reinforcement (in WP membrane):
  OPTIMIX ME Alkali-resistant Fibreglass Mesh
- **H** Tile Adhesive*:
  OPTIMIX TA328 Tile Adhesive (Flexible) OR
  OPTIMIX TA338 Tile Adhesive (High Performance)
- **I** Tile Grout*:
  OPTIMIX TG410E Tile Grout (High Performance)

Club House & Water Feature



Wall

- **A** Concrete substrate
- **B** Spatterdash:
  OPTIMIX Procrete
- **C** Bonding agent (Optional):
  OPTIMIX Procrete
- **D** Wall render:
  OPTIMIX BP168 Premium Base Plaster
- **E** Waterproofing membrane:
  OPTIMIX WP533 Waterproofing Slurry (Semi-Flexible)
- **F** Mesh Reinforcement (in WP membrane):
  OPTIMIX ME Alkali-resistant Fibreglass Mesh
- **G** Tile Adhesive*:
  OPTIMIX TA328 Tile Adhesive (Flexible) OR
  OPTIMIX TA338 Tile Adhesive (High Performance)
- **H** Tile Grout*:
  OPTIMIX TG410E Tile Grout (High Performance)

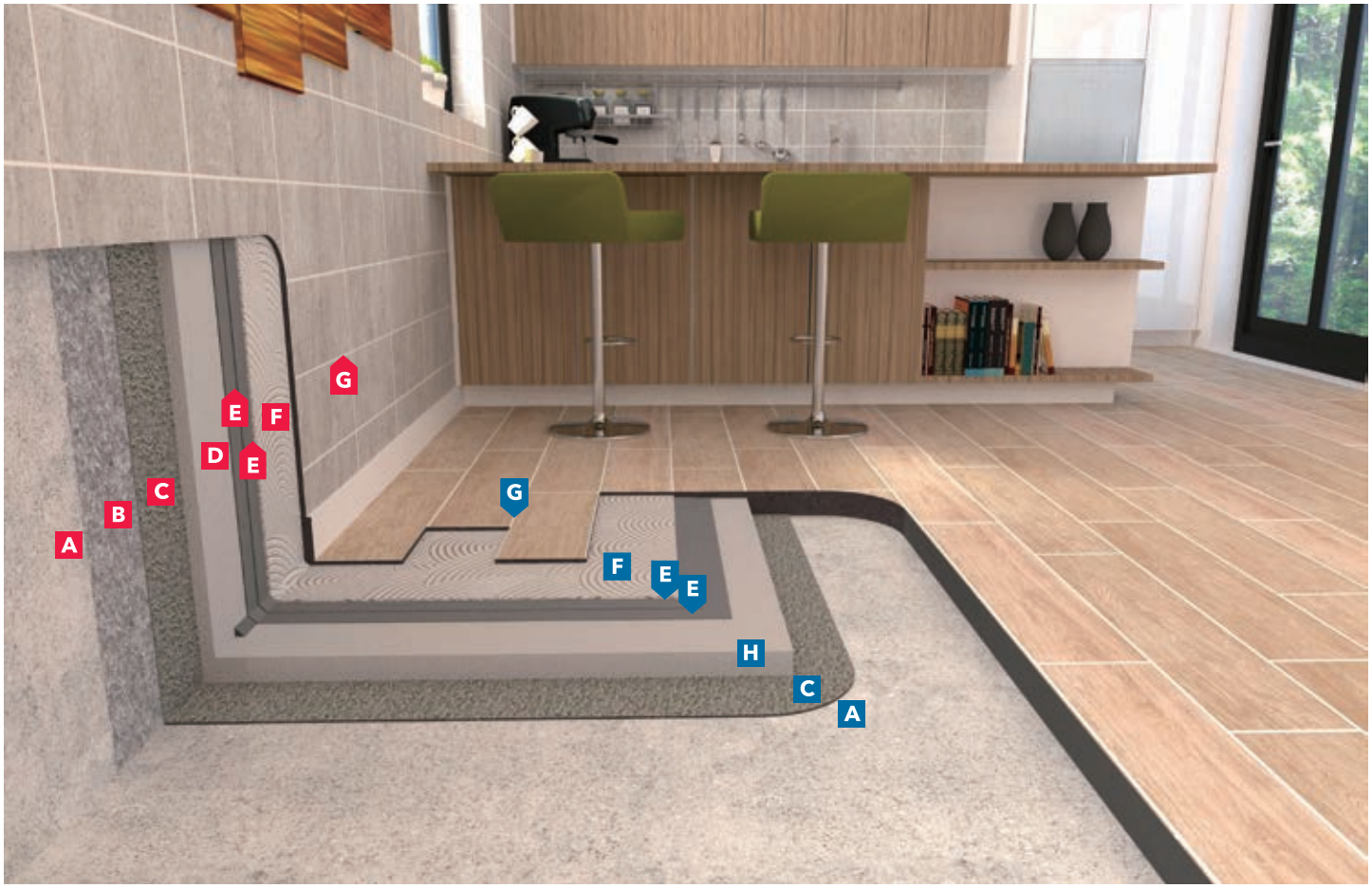
*(*Grade S offers extra anti-efflorescence)*

Floor

- **A** Concrete substrate
- **E** Waterproofing membrane:
  OPTIMIX WP533 Waterproofing Slurry (Semi-Flexible)
- **I** Primer or Bonding agent:
  OPTIMIX SF80 or OPTIMIX Procrete
- **J** Semi-dry floor bedding:
  OPTIMIX DB390N Semi-dry Bedding Mortar
- **K** Tile Adhesive:
  OPTIMIX DB391N Adhesive Slurry
- **H** Tile Grout*:
  OPTIMIX TG410E Tile Grout (High Performance)

NOTE: 1. Material system and drawing are typical example for reference only, product sequence and combination can be modified to fit every specific projects, subject to project specifications from architects and contractors. 2. Optimix WP515 should be applied on concrete substrate for withstanding negative water pressure, or where is necessary. 3. Optimix ME Alkali-resistant Fibreglass Mesh in WP membrane is necessary for extreme conditions and projects types. 4. Angle fillet should be applied before receiving WP membrane.

Kitchen & Damp Area



Wall

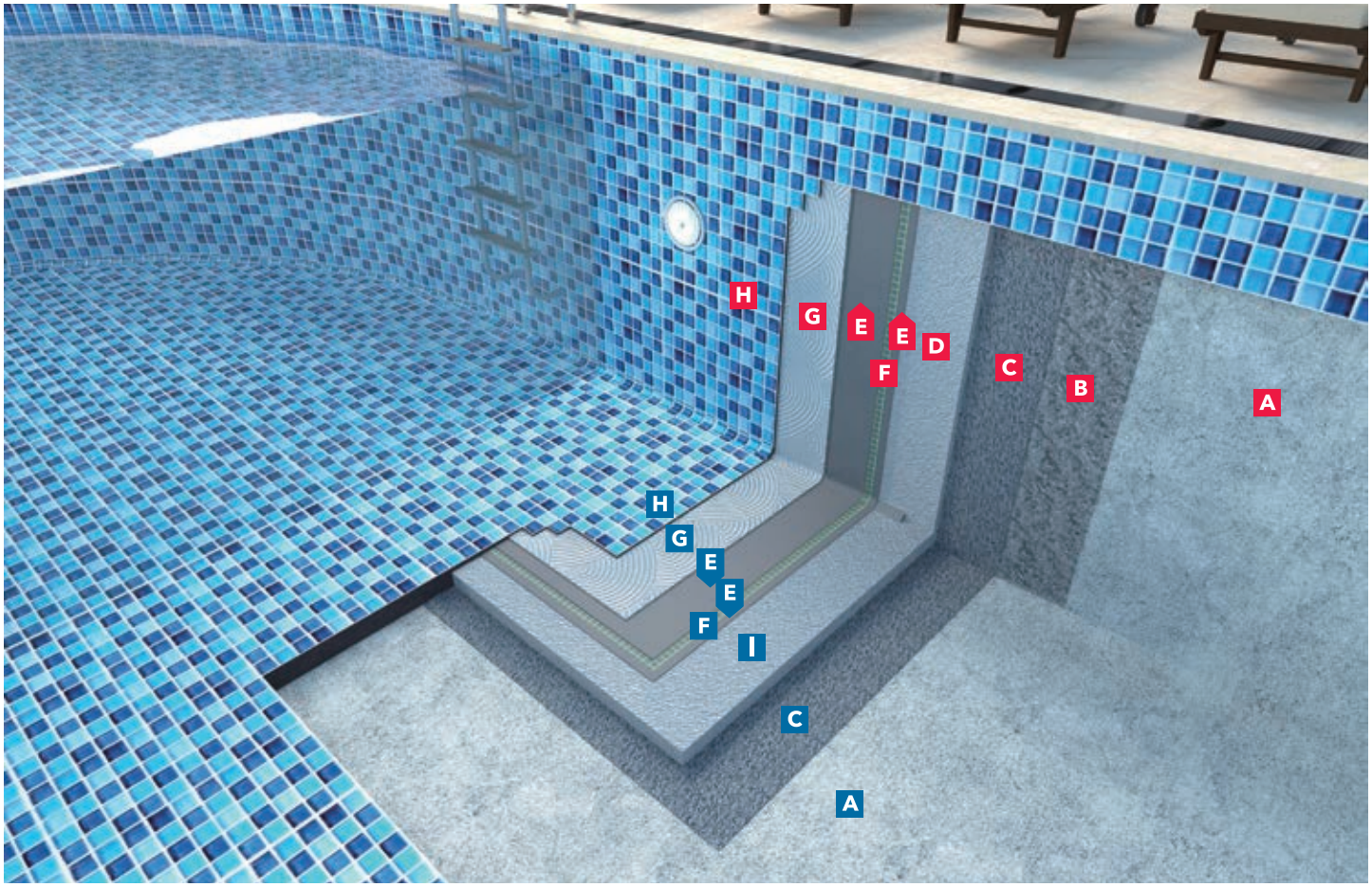
- A Concrete substrate
- B Spatterdash:
  OPTIMIX Procrete
- C Bonding agent (Optional):
  OPTIMIX Procrete
- D Wall render:
  OPTIMIX BP138 Base Plaster (Waterproof)
- E Waterproofing membrane:
  OPTIMIX WP533 Waterproofing Slurry (Semi-Flexible)
- F Tile Adhesive*:
  OPTIMIX TA313 Tile Adhesive (Semi-Flexible) OR
  OPTIMIX TA328 Tile Adhesive (Flexible)
- G Tile Grout*:
  OPTIMIX TG410E Tile Grout (High Performance)

*(*Grade S offers extra anti-efflorescence)*

Floor

- A Concrete substrate
- C Bonding agent:
  OPTIMIX Procrete
- H Floor Screed:
  OPTIMIX FS161 Waterproofing Floor Screed
- E Waterproofing membrane:
  OPTIMIX WP533 Waterproofing Slurry (Semi-Flexible)
- F Tile Adhesive*:
  OPTIMIX TA313 Tile Adhesive (Semi-Flexible) OR
  OPTIMIX TA328 Tile Adhesive (Flexible)
- G Tile Grout*:
  OPTIMIX TG410E Tile Grout (High Performance)

Swimming Pool



Wall

- A Concrete substrate
- B Spatterdash:
  OPTIMIX Procrete
- C Bonding agent (Optional):
  OPTIMIX Procrete
- D Wall render:
  OPTIMIX BP168 Premium Base Plaster
- E Waterproofing membrane:
  OPTIMIX WP533 Waterproofing Slurry (Semi-Flexible)
- F Mesh Reinforcement (in WP membrane):
  OPTIMIX ME Alkali-resistant Fibreglass Mesh
- G Tile Adhesive*:
  OPTIMIX TA328 Tile Adhesive (Flexible) OR
  OPTIMIX TA338 Tile Adhesive (High Performance)
- H Tile Grout*:
  OPTIMIX TG410E Tile Grout (High Performance)

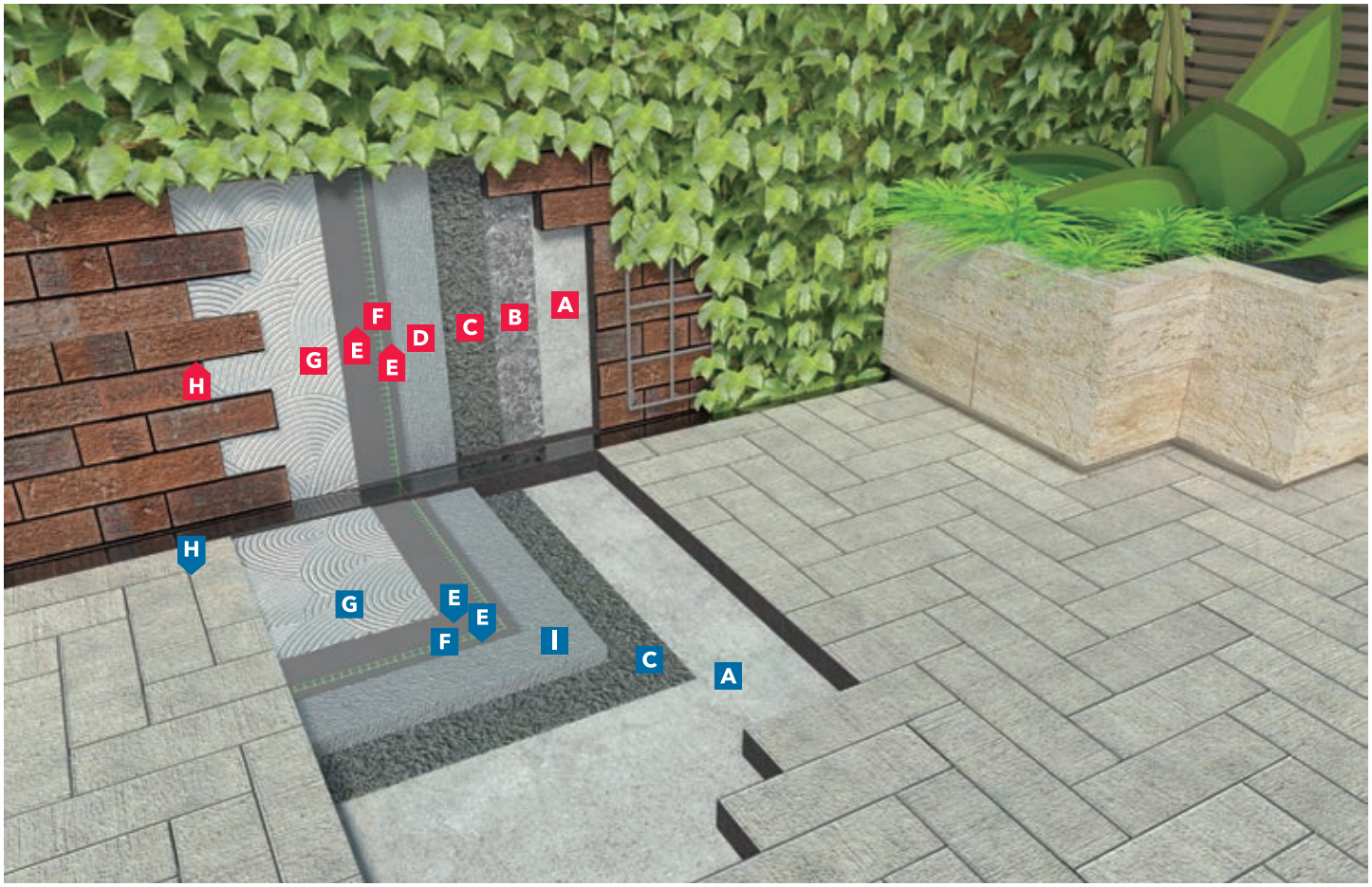
*(*Grade S offers extra anti-efflorescence)*

Floor

- A Concrete substrate
- C Bonding agent:
  OPTIMIX Procrete
- I Floor Screed:
  OPTIMIX FS161 Waterproofing Floor Screed
- E Waterproofing membrane:
  OPTIMIX WP533 Waterproofing Slurry (Semi-Flexible)
- F Mesh Reinforcement (in WP membrane):
  OPTIMIX ME Alkali-resistant Fibreglass Mesh
- G Tile Adhesive*:
  OPTIMIX TA328 Tile Adhesive (Flexible) OR
  OPTIMIX TA338 Tile Adhesive (High Performance)
- H Tile Grout*:
  OPTIMIX TG410E Tile Grout (High Performance)

NOTE: 1. Material system and drawing are typical example for reference only, product sequence and combination can be modified to fit every specific projects, subject to project specifications from architects and contractors. 2. Optimix WP515 should be applied on concrete substrate for withstanding negative water pressure, or where is necessary. 3. Optimix ME Alkali-resistant Fibreglass Mesh in WP membrane is necessary for extreme conditions and projects types. 4. Angle fillet should be applied before receiving WP membrane.

Planter & Green wall



Wall

- A Concrete substrate
- B Spatterdash:
  OPTIMIX Procrete
- C Bonding agent (Optional):
  OPTIMIX Procrete
- D Wall render:
  OPTIMIX BP138 Base Plaster (Waterproof)
- E Waterproofing membrane:
  OPTIMIX WP568 Waterproofing Slurry (Flexible)
- F Mesh Reinforcement (in WP membrane):
  OPTIMIX ME Alkali-resistant Fibreglass Mesh
- G Tile Adhesive*:
  OPTIMIX TA328 Tile Adhesive (Flexible) OR
  OPTIMIX TA338 Tile Adhesive (High Performance)
- H Tile Grout*:
  OPTIMIX TG410E Tile Grout (High Performance)

*(*Grade S offers extra anti-efflorescence)*

Floor

- A Concrete substrate
- C Bonding agent:
  OPTIMIX Procrete
- I Floor Screed:
  OPTIMIX FS161 Waterproofing Floor Screed
- E Waterproofing membrane:
  OPTIMIX WP568 Waterproofing Slurry (Flexible)
- F Mesh Reinforcement (in WP membrane):
  OPTIMIX ME Alkali-resistant Fibreglass Mesh
- G Tile Adhesive*:
  OPTIMIX TA328 Tile Adhesive (Flexible) OR
  OPTIMIX TA338 Tile Adhesive (High Performance)
- H Tile Grout*:
  OPTIMIX TG410E Tile Grout (High Performance)



OPTIMIX PRODUCT OVERVIEWS

OPTIMIX BASE PLASTER & OPTIMIX FLOOR SCREED

Optimix Base Plaster & Optimix Floor Screed are designed for interior and exterior wall and floor plastering onto concrete and block surfaces. With special formulations, wall plasters can be applied by hand trowel and machine spray for profile levelling and alignment as specified. Simply mixing with water and blending as instructed, dry powder plasters become homogenous and pasty plasters with good workability and outstanding performance for various projects.

Base Plaster

- OPTIMIX BP126 Base Plaster (Regular)
- OPTIMIX BP138 Base Plaster (Waterproof)
- OPTIMIX BP168 Premium Base Plaster

Floor Screed & Hardening

- OPTIMIX FS151 Floor Screed
- OPTIMIX FS161 Waterproofing Floor Screed
- OPTIMIX FS191 Insulation Floor Screed
- OPTIMIX FS192 Light Weight Screed
- OPTIMIX FH919 Floor Hardener
- OPTIMIX FH929 Abrasion Resistant Floor Topping













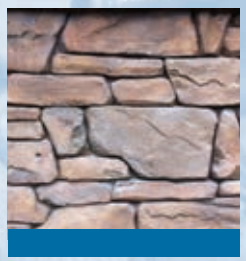
OPTIMIX THIXOTROPIC MORTAR

Optimix Thixotropic Mortar is premium series of high build mortars for supporting decorative elements in artificial features and thick applications. With special formulations, this series allows high thickness plastering in single run and easy finish after several runs of hand trowel.

- OPTIMIX TM177 Thixotropic Mortar (Regular)
- OPTIMIX TM188 Thixotropic Mortar (Fine)







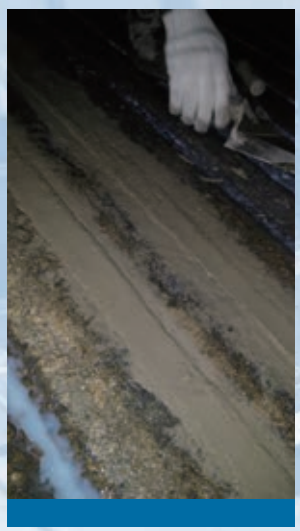


OPTIMIX MASONRY MORTAR

Optimix Masonry Mortar offers a series of premixed dry cementitious mortars for supporting general wall and floor beddings on various cementitious substrates. Being pre-mixed and pre-bagged, material quality can be stabilized and defect can be minimized.

- OPTIMIX F12 Masonry Mortar
- OPTIMIX F50 Easy Screed







OPTIMIX TILE ADHESIVE & TILE GROUT

Optimix Tile Adhesive & Tile Grout are designed for interior and exterior wall and floor tiling and grouting works onto various substrates, e.g. concrete, brick, mortar, plaster, block, board, and so on. Grade S of extra anti-efflorescence property empowers products with extra capability to perform under exterior and humid works. Coupling to primer systems applied on substrates, cementitious adhesives and grouts can support working on gypsum-based substrates.

- OPTIMIX TA302 Thin Joint Adhesive Mortar
- OPTIMIX TA303 In-Fill Flowable Adhesive
- OPTIMIX TA312 Tile Adhesive (General Purpose)
- OPTIMIX TA313 Tile Adhesive (Semi-Flexible)
- OPTIMIX TA314 2-in-1 Tile Fix and Grout
- OPTIMIX TA328 Tile Adhesive (Flexible)
- OPTIMIX TA329 Tile Adhesive (Fast-set)
- OPTIMIX TA338 Tile Adhesive (High Performance)
- OPTIMIX TA398 Tile Adhesive (Two-Component)
- OPTIMIX DB390 Rapid-Setting Semi-Dry Bedding Mortar
- OPTIMIX DB391 Rapid-Setting Adhesive Slurry
- OPTIMIX TG410 Tile Grout - TG410F/TG410C/TG410S
- OPTIMIX TG410E Tile Grout (High Performance) - TG410ES













OPTIMIX SKIMCOAT

Optimix Skimcoat is a high quality smooth plaster with good strengths and low shrinkage for surface smoothening works before receiving wall coatings and wallpapers. With suitable machinery, material can be sprayed for large area works and ceiling applications.

Ready-To-Use Plaster offers a cement-free option for Green and ready material for plastering.

- OPTIMIX SC212 Skimcoat (Flexible) – Tile Filler
- OPTIMIX SC216 Skimcoat (Fine)
- OPTIMIX SC228 Skimcoat (Regular)
- OPTIMIX SC273 Skimcoat (Extra Fine) – Putty for Paint













OPTIMIX WATERPROOFING

Optimix Waterproofing consists of different waterproofing barriers ranged from rigid to highly flexible types. Different elasticities and mechanical properties of membranes are designed for various projects and conditions to achieve waterproofing works.

- OPTIMIX WP515 Waterproofing Slurry (General)
- OPTIMIX WP533 Waterproofing Slurry (Semi-Flexible)
- OPTIMIX WP568 Waterproofing Slurry (Flexible)
- OPTIMIX WF578 Flexible Waterproofing Colour Finishes









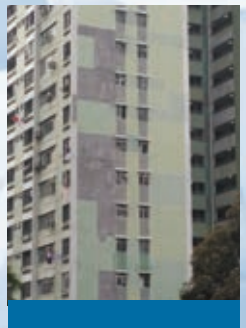
OPTIMIX REPAIR MORTAR

Optimix Repair Mortar consists of wide range of superior repair mortars for various concrete repair works in buildings, highways, roads, drainage facility and so on. Low shrinkage and high mechanical strength allow the repair mortars to serve with long durability. Rapid-set mortars make repairing works fast enough for locations with short closure times or variables.

- OPTIMIX RM700 Repair Mortar (Window Frame Grout)
- OPTIMIX RM717 Thin Bed Rapid Setting Mortar
- OPTIMIX RM725 Repair Mortar (HKHA Class 25)
- OPTIMIX RM740 Repair Mortar (HKHA Class 40)
- OPTIMIX RM760 Rapid-Set Repair Mortar
- OPTIMIX RM770 Repair Mortar (Sprayable)
- OPTIMIX RM780 Repair Mortar (Rapid Setting)
- OPTIMIX RM781 Water Plug
- OPTIMIX RM787 Rapid-Setting Concrete









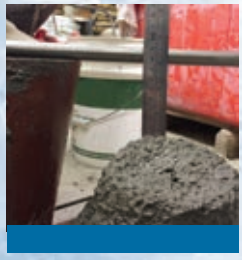
OPTIMIX PREBATCHED CONCRETE

Optimix Prebatched Concrete offers a wide range of high quality powdery concretes for various concrete works that cannot be covered by conventional bulk concrete supply. Simply mix and blend with water, they become ready-to-use concrete with good consistency and outstanding performance as normal concrete.

- OPTIMIX PC30 Prebatched Concrete (Standard)
- OPTIMIX PC40 Prebatched Concrete (Premium)
- OPTIMIX PC45 Prebatched Concrete (Superior)









OPTIMIX NON-SHRINK GROUT

Optimix Non-Shrink Grout provides a comprehensive range of fluid cementitious grouts for different grouting works. Formulated with various shrinkage compensation systems, grouts are equipped with appropriated expansion capability to fit grouting works for building and civil engineering works.

- OPTIMIX NS612 Non-Shrink Grout (Regular)
- OPTIMIX NS622 Premium Non-Shrink Grout
- OPTIMIX NS636 Non-Shrink Grout (Precision)
- OPTIMIX NS650 Tendon Grout
- OPTIMIX NS688 Expanding Grout Admixture





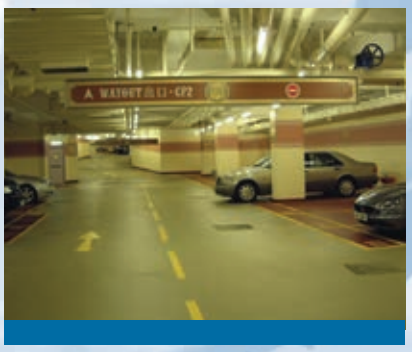


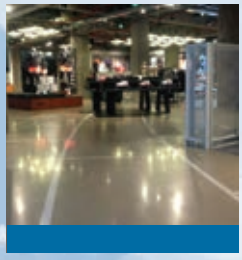
OPTIMIX SELF-LEVELLING SCREED

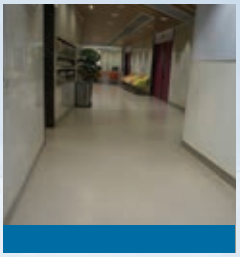
Optimix Self-Levelling Screed provides a series of flowable cementitious screeds designed for supporting various underlayment and overlayment floor applications. Formulated with special additives and binder systems, self-levelling screeds with high flowability, high surface smoothness and low shrinkage are developed for various flooring works at carparks, shopping malls, flats, hospitals, hotels, offices, schools, showrooms, warehouses, and so on.

- OPTIMIX SF818 Self-Levelling Underlayment
- OPTIMIX SF828 Self-Levelling Overlayment
- OPTIMIX SF838 Colour Self-Levelling Overlayment
- OPTIMIX SF868 Exterior Self-Levelling Overlayment
- OPTIMIX SF878 Heavy Duty Self-Levelling Overlayment
- OPTIMIX SF888 High Performance Road Topping
- OPTIMIX TF880 Trendy Flooring









OPTIMIX EMULSION and ACCESSORIES

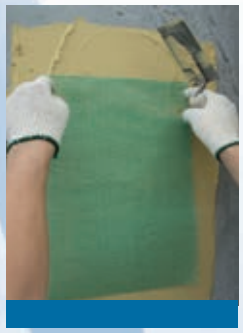
Optimix Emulsion and Accessories offer a comprehensive series of liquid emulsions to support various polymer-modified purposes, e.g. strength enhancement, primer, surface protection, curing and so on. Accessories facilitate the applications and enhance the performance of other functional systems.

- OPTIMIX Procrete
- OPTIMIX Polymer Emulsion
- OPTIMIX EVA Emulsion
- OPTIMIX SF80
- OPTIMIX Curing Compound
- OPTIMIX PU Sealer
- OPTIMIX ME Alkali-resistant Fibreglass Mesh
- OPTIMIX Ore Grits











OPTIMIX SYSTEM OVERVIEWS

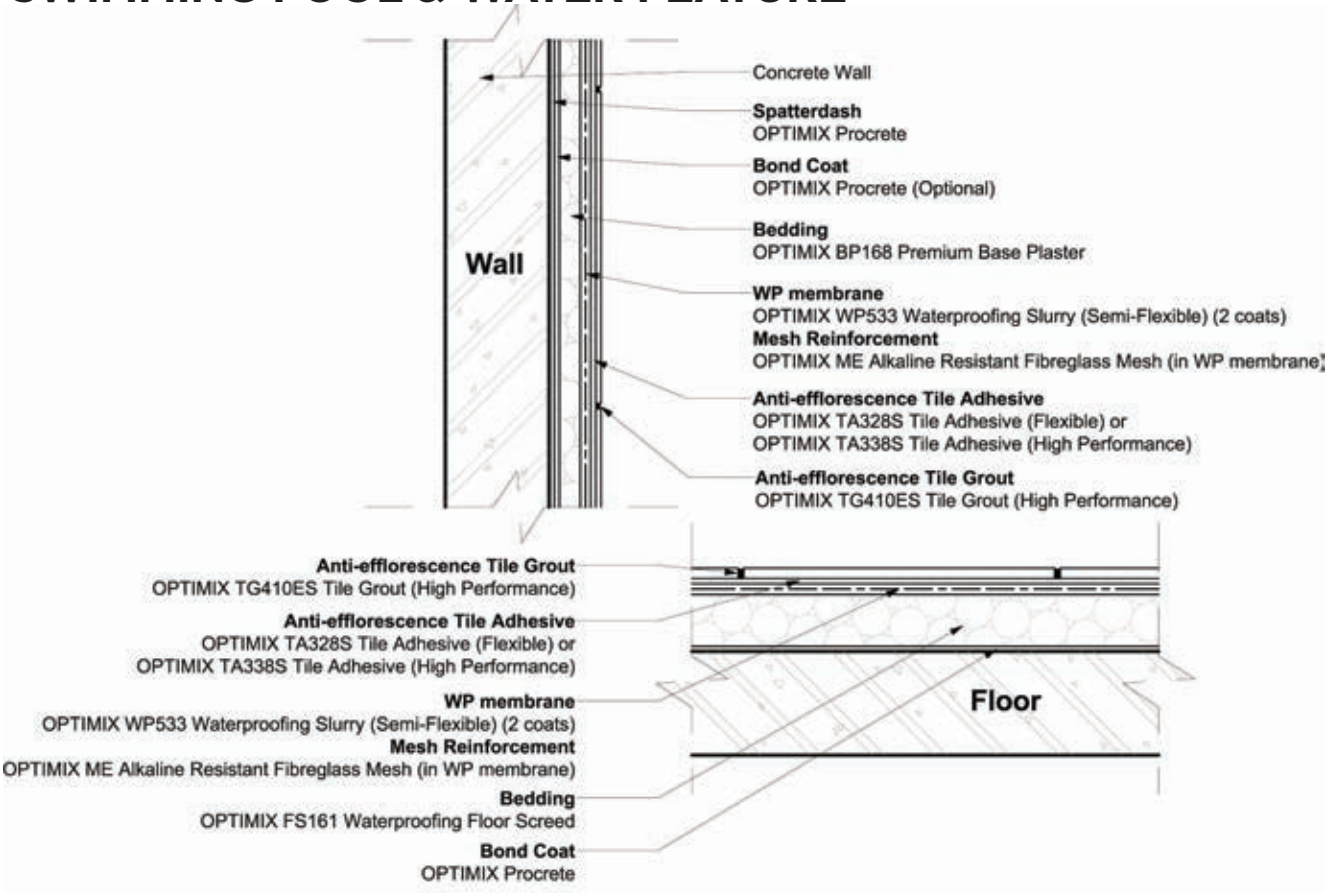
	OPTIMIX Tiling Systems for various locations	Interior room		Kitchen Washroom		Roof Podium Balcony Planter & Green Wall		Swimming Pool Water Tank Water Feature		Club House Lobby Corridor		Exterior Wall		Carpark Basement Tunnel Underground facility		Driveway EVA	Semi-dry screed
No.	Functions	Wall	Floor	Wall	Floor	Wall	Floor	Wall	Floor	Wall	Floor	Wall	Floor	Wall	Floor	Floor	Floor
1	Substrate WP x 2 coats	(WP515)		(WP515)		(WP515)		(WP515)		(WP515)		(WP515)		WP515		(WP515)	(WP533)
2	Spatterdash	Procrete	-	Procrete	-	Procrete	-	Procrete	-	Procrete	-	Procrete	-	Procrete	-	-	-
3	Bonding agent	(Procrete)	Procrete	(Procrete)	Procrete	(Procrete)	Procrete	(Procrete)	Procrete	(Procrete)	Procrete	(Procrete)	Procrete	(Procrete)	Procrete	Procrete	SF80/ Procrete
4	Bedding	BP126	FS151	BP138	FS161	BP138	FS161	BP168	FS161	BP126	FS151	BP138	FS161	BP138	FS161	FS161	DB390N
5	WP Membrane x 2 coats	(WP533)		WP533	WP533	WP568	WP568	WP533	WP533	(WP533/WP568)		(WP568)		WP533	WP533	WP533	-
6	Reinforcement in WP	-		(ME)		ME		ME		-	-	-	-	ME		-	-
7	Tile Adhesive	TA313/TA328		TA313S/TA328S		TA328S/TA338S		TA328S/TA338S		TA328/TA398		TA328S/TA338S		TA328S/TA338S		TA328S/ TA338S	DB391N
8	Tile Grout	TG410E		TG410ES		TG410ES		TG410ES		TG410E		TG410ES		TG410ES		TG410ES	TG410E

NOTE: Branketed items are OPTIONAL for general conditions, while they are highly essential for extreme conditions, subjected to specifications and project types.
NOTE: For withstanding negative water pressure, or where is necessary, e.g. ceiling in basement, OPTIMIX WP 515 and/or OPTIMIX WP533/WP658 should be applied for waterproofing purpose.
NOTE: Systems are typical examples for reference only, product sequence and combination can be modified to fit every specific projects, subject to project specifcations from architects and contractors.

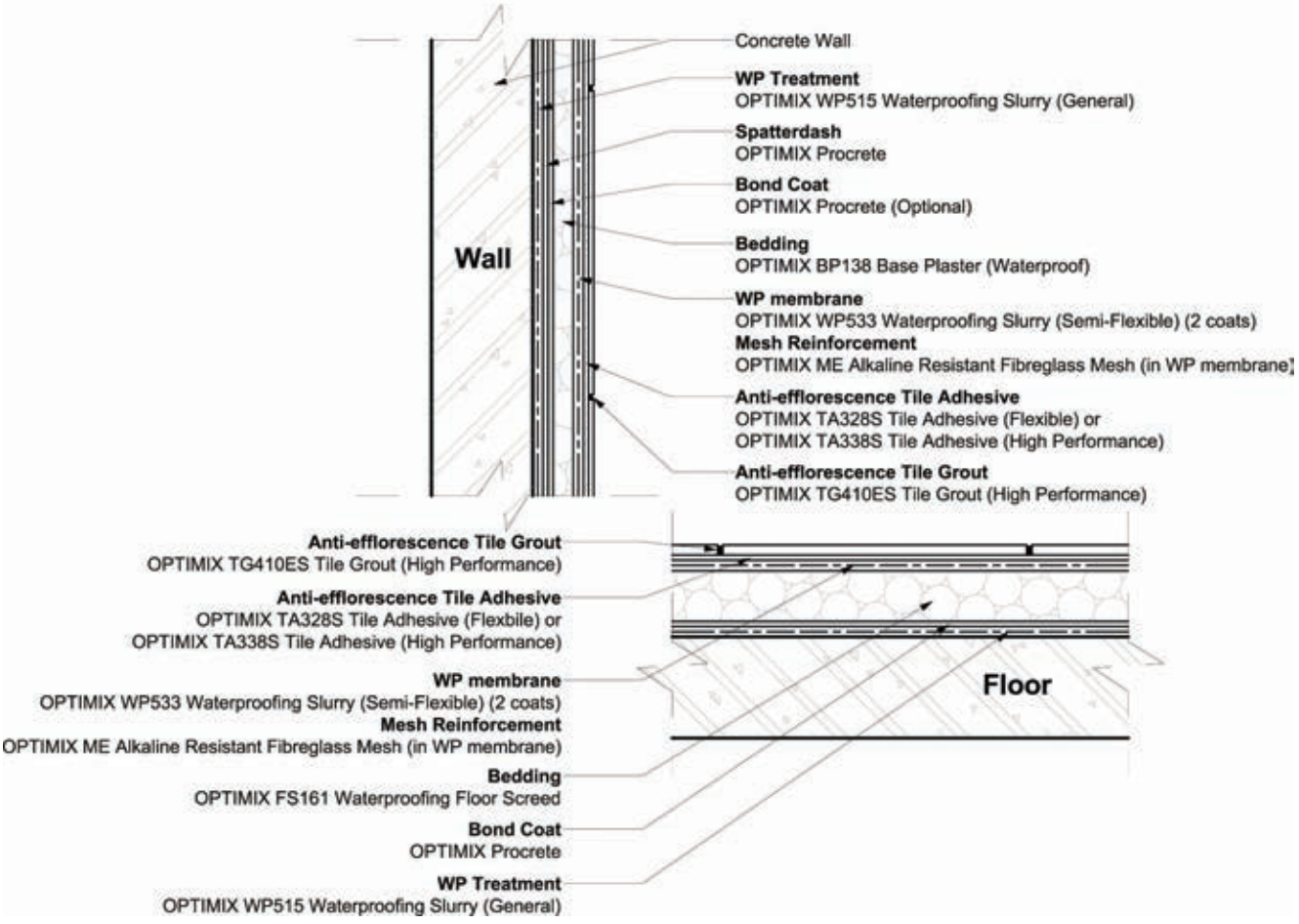
PRODUCT INFORMATION	
EMULSION	**GENERAL FEATURES**
OPTIMIX SF80	Polymer dispersion for substrate consolidation and bond enhancement
OPTIMIX Procrete	Polymer dispersion for bonding agent and spatterdash
PLASTERING & FLOORING	
OPTIMIX BP126 Base Plaster (Regular)	Regular wall render for machine spray and hand application
OPTIMIX BP138 Base Plaster (Waterproof)	Water resistant wall render for machine spray and hand application
OPTIMIX BP168 Premium Base Plaster	Premium wall render for high strengths
OPTIMIX FS151 Floor Screed	Regular floor screed for general floor levelling
OPTIMIX FS161 Waterproofing Floor Screed	Water resistant floor screed for floor levelling
OPTIMIX DB390N Semi-dry Bedding Mortar	Semi-dry floor bedding mortar with normal setting time
TILING	
OPTIMIX TA313/TA313S Tile Adhesive (Semi-Flexible)	C1T/C1TE of BS EN 12004; single component cementitious adhesive with reduced slip and extended open time. Grade S for extra anti-efflorescence.
OPTIMIX TA328/TA328S Tile Adhesive (Flexible)	C2TE of BS EN 12004; single component enhanced cementitious adhesive with reduced slip and extended open time. Grade S for extra anti-efflorescence.
OPTIMIX TA338/TA338S Tile Adhesive (High Performance)	C2TE/S2 of BS EN 12004 / BS EN 12002; single component highly flexible enhanced cementitious adhesive with reduced slip and extended open time. Grade S for extra anti-efflorescence.
OPTIMIX TA398 Tile Adhesive (Two-Component)	C2TE/S2 of BS EN 12004 / BS EN 12002; two-component highly flexible enhanced cementitious adhesive with reduced slip and extended open time.
OPTIMIX DB391N Adhesive Slurry	Single component adhesive slurry for OPTIMIX DB390N Semi-Dry Bedding Mortar
OPTIMIX TG410E Tile Grout (High Performance)	CG2 WA of BS EN13888; single component high performance multicolour cementitious tile grout with extra anti-efflorescence for Grade S.
WATERPROOFING	
OPTIMIX WP515 Waterproofing Slurry (General)	Single component cementitious waterproofing slurry with crystallization property
OPTIMIX WP533 Waterproofing Slurry (Semi-Flexible)	Two-component semi-flexible waterproofing slurry
OPTIMIX WP568 Waterproofing Slurry (Flexible)	Two-component flexible waterproofing slurry
OPTIMIX ME Alkali-resistant Fibreglass Mesh	Fibreglass mesh for reinforcing strengths of WP membrane

OPTIMIX®
DRY MORTARS SPECIALIST

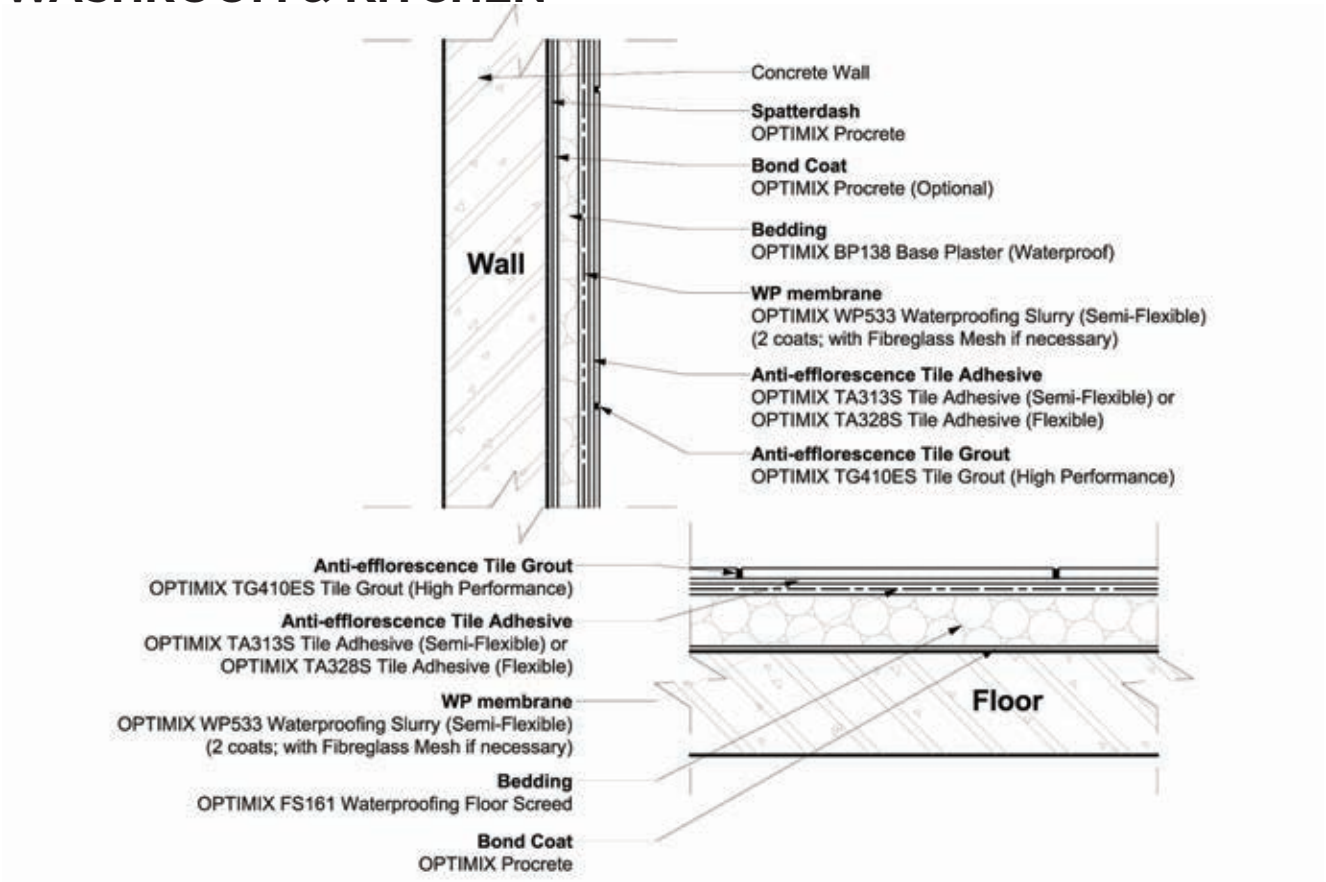
SWIMMING POOL & WATER FEATURE



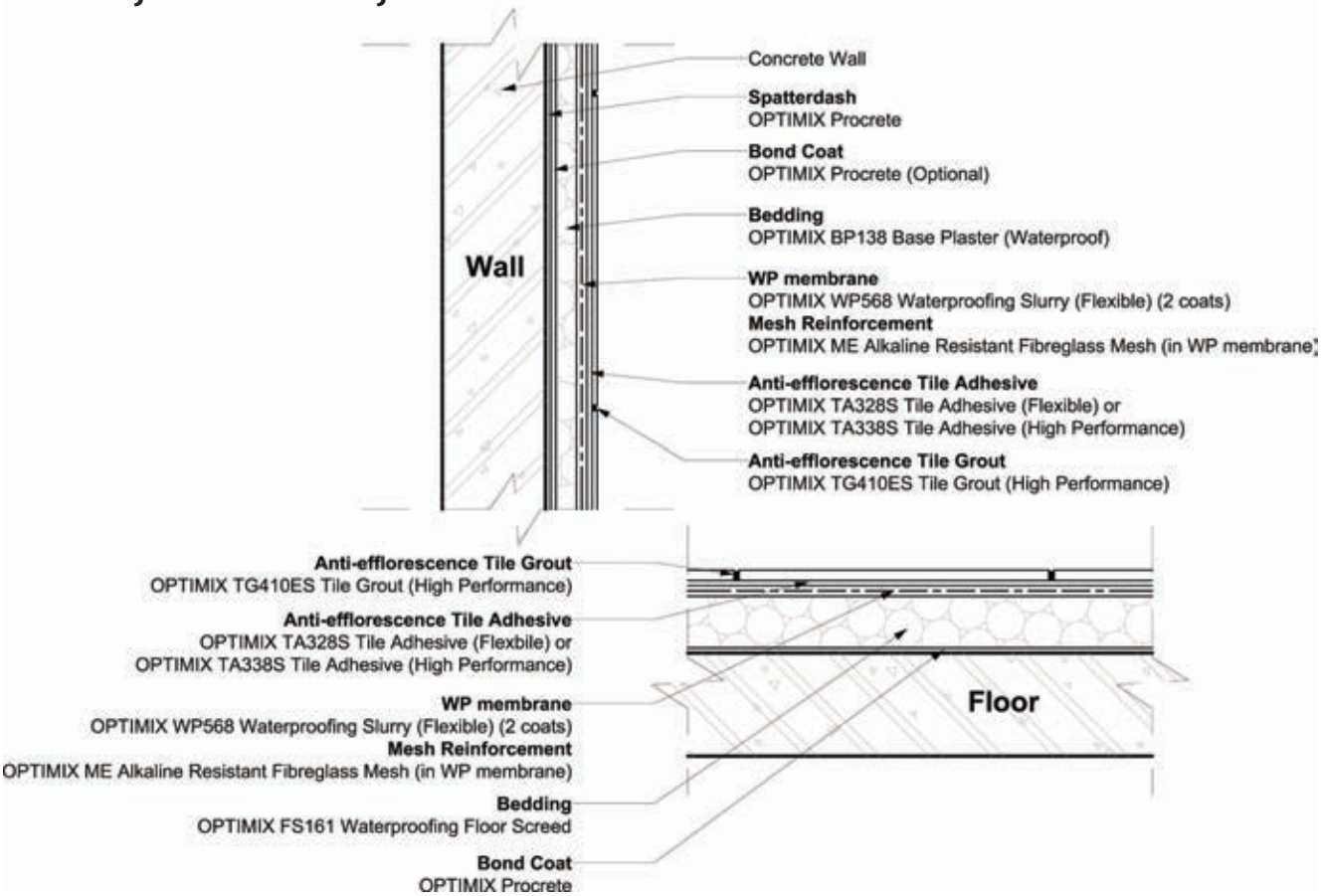
CARPARK & UNDERGROUND FACILITY

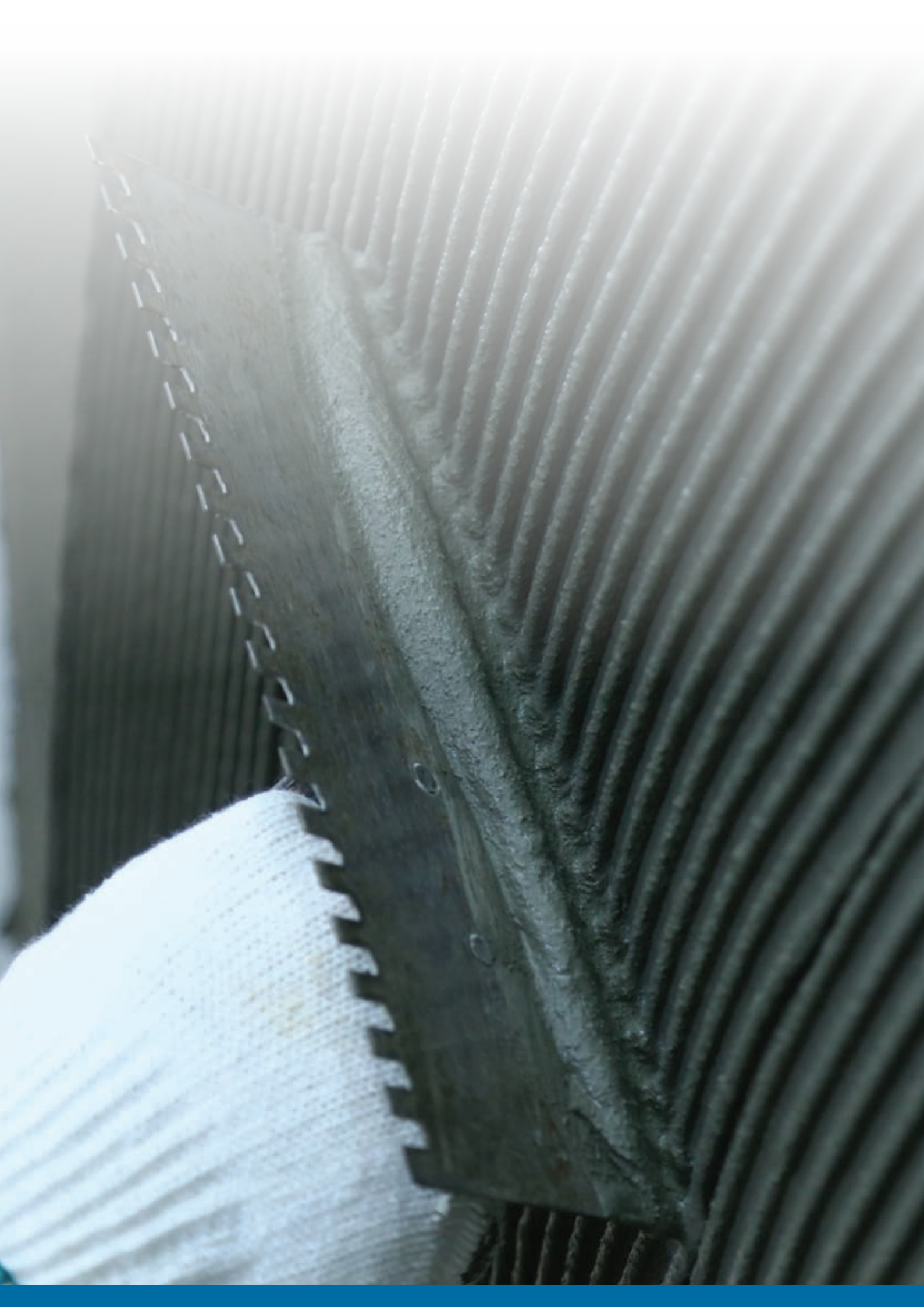


WASHROOM & KITCHEN



ROOF, BALCONY, PLANTER & GREEN WALL



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