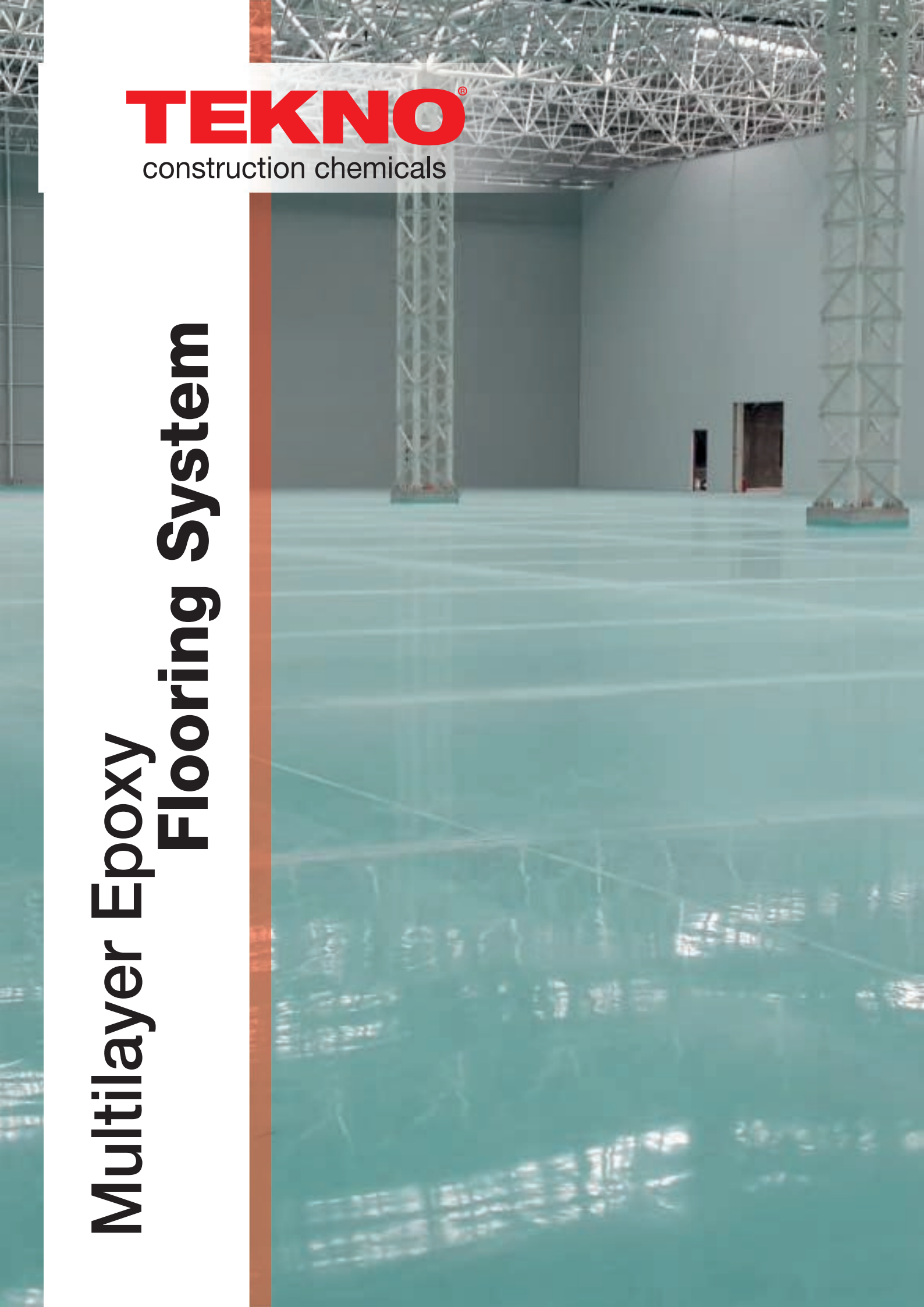
TEKNO®
construction chemicals

Multilayer Epoxy Flooring System



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Method of statement for the application of Teknobond 600 2-part, Epoxy Multilayer Coating System

Products and Description

Teknobond 300

Two part, economic, solvent-free epoxy resin binder for priming, levelling mortars and screeds

Teknobond 600

Two part, economic, solvent-free, pigmented epoxy roller and seal coat.

Quartz sand

(0.1 - 0.3 mm)

Teknobond 300

Epoxy Based, Two Component, Low Viscosity Primer

CE EN 1504-2

Product Description

Teknobond 300 is a two component, low viscosity, solvent free epoxy resin primer.

Areas of Usage

- Lining concrete surfaces, cement screed and epoxy mortars,
- On normal, hot surface, moist and wet surfaces,
- As a primer before all epoxy and polyurethane floor coverings,
- As a binder for epoxy based levelling mortar and mortar coverings,

Features and Benefits

- Low viscosity
- Has good penetration properties,
- High bond resistance,
- Solvent free,
- Easy to implement,
- Waiting times are short,
- All purpose
- It can be used outdoors,

Application Instructions

Surface Preparation: The application surface should be free of all kinds of dust, dirt, weak and friable particles, cement sherbet residues, oil and grease and dry. Concrete substrate must be clean, robust and sufficiently Compressive Resistance (at least 25 N/mm²), tensile strength (pull off) at least 1.5 N/mm². Application surface, to ensure maximum adhesion resistance, pressurized air holding, etc. it must be cleaned using methods.

Mixing: After adding component B to component A, mix it for 2-3 minutes until it has a homogeneous color (up to 400 RPM) with a low speed electric stirrer.

Make sure that a continuous, nonporous layer is covered by the surface. If necessary, apply two storey of primer. Teknobond 300 NB can be applied with brush, roller or spray gun. Immediately after application, tools should be cleaned with TEKNOTHINNER without hardening. Hardened product can only be mechanically cleaned.

Application Notes / Restrictions

- Do not use it below the permitted minimum temperature to complete the hardening of the material. Low temperatures will slow hardening and high temperatures will speed hardening. Pot life will vary depending on the temperature.
- The floor temperature without curing should be at least 3°C above the condensation point.
- The product may cause sensitization by skin contact. Protective gloves, mask and goggles should be worn. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- +5°C below the product stored for a long time can be observed crystallization. If the crystals are dissolved, the product can be used without any problems by returning to room temperature.
- Color losses can be yellowing of the product, which is hardened due to direct sunlight (UV).
- In areas where water clear color and long term UV resistance is expected, TEKNOBOND 350 should be used.

Outlay

Primer : 300-500 gram/m²
Bedding Mortar: 1,4 - 1,6 kg/m²/mm (Quartz sand varies depending on the amount)
Repair Mortar : 2,0 - 2,2 kg/m²/mm (Applications using quartz sand up to 10 times by weight)

Technical Data

General Information		
Chemical Structure	Solvent free Epoxy	
Color	Transparent Yellowish Liquid	
Shelf Life	12 months from the date of production in its original packaging	
Package	A Component: 10 kg can B Component: 5 kg can A+B Components: 15 kg set	A Component:400 kg (2 tub) B Component: 200 kg tub A+B Components: 600 kg set (3 tub)
Application Information		
Mixture Density	1,10±0,02 g/ml (EN ISO 2811-1)	
Pot Life	≥ 30 minutes (It depends on the weather conditions)	
Waiting Period Between Layers	Min 24 hours, max 3 days (+20°C)	
Mixture Ratio	2 Component A : 1 Component B (Weight)	
Full Strength	7 days (+20°C de)	
Surface/Environment Temperature	Min +10°C / Max +30°C	
Surface Humidity Content	< 4% (Weight)	
Relative Humidity	It should be max %80	
Performance Information		
Bending Resistance (7 days)	≥ 30 N/mm²	(TS EN 196-1)
Compressive Resistance (7 days)	≥ 90 N/mm²	(TS EN 196-1)
Concrete Adhesion Strength	≥ 4 N/mm² (From Concrete)	(TS EN 4624)
Steel Adhesion Strength	< 3 N/mm²	(TS EN 4624)
Shore D Hardness (7 days)	83	
Thermal Strength	Continuous: +50°C max 7 days: +80°C	

Technical information is approximate value obtained from the Tekno Construction Chemicals Laboratory works and are valid for the performance of the finished product in 27 days, which are obtained at +20°C temperature and 50% relative humidity rate.

Teknobond 600

Industrial Epoxy Flooring Paint

CE EN 1504-2

Product Description

It is a two component epoxy based paint which can be applied to concrete, metal, wood, plaster and gypsum surface and is resistant to severe service conditions and chemicals.
In order to obtain textured surface, Teknobond 600 TIX should be used.

Areas of Usage

- Indoor and outdoor places,
- Constantly wet areas, the areas that chemical agents are used
- In food factories.
- In laboratories, used on the materials such as parquet, floor tile, tile, ceramic, mosaic, glass mosaic,and porcelain.
- Also suitable for walls, ceilings and floor coverings/upholstery

Features and Benefits

- Water impermeable.
- Resistant to chemicals and bacteria
- Resistant to freeze
- Long-lasting
- Hygienic, easy to clean

Application Instructions

Surface Quality:The surfaces should be clean, dry, strong and free from all foreign objects which may cause separation.
Surface Preparation: The roughness on the surface should be levelled, and the hollow shapes should be filled.
Compound: TEKNOBOND 600 is a two component product. The proportionally prepared components A and B which consists of hardener agent and resin, are mixed together by using a low-speed mixer. The mixing is continued until a homogenous mixture is obtained.

Application Notes / Restrictions

- In self application, special filling is added and poured as necessary It is levelled by trowel and combed with spiked roller.
- In order to complete the hardening of the material, do not use it allowed minimum temperature. Low temperatures will slow down the hardening, while high temperatures will accelerate the hardening. The pot life will also vary depending on the temperatures.
- The product may irritate the skin. Protective glasses or gloves should be used. Protective hand cream should be used before starting work. If the soil mixture comes into contact with eyes, eyes should be washed immediately with warm water and you should go to doctor.
- Crystallization can be shown in the product if it is kept below 0°C for a long time. If the crystals are broken by bringing the product back to room temperature, the product can be used without any problem. Discoloration and yellowing can be happened in the product which hardened depending on direct sunlight. After application, the product should be protected against direct sunlight, strong wind, high air temperature (above +35°C), bad weather conditions such as rain and freeze. In order to complete the hardening and reaction shortly after the application, the areas that contacts with skin should be cleaned with water and detergent.
- Immediately after application, the equipment should be cleaned with Tekno Thinner before it becomes hard.

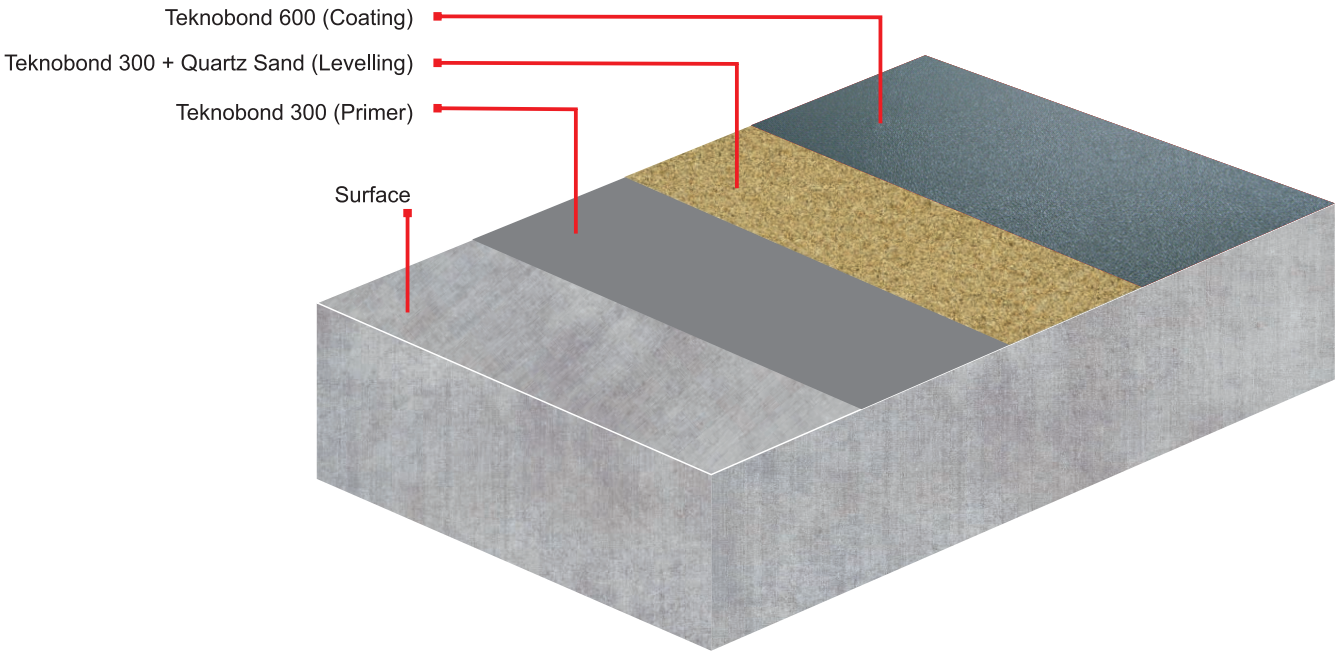
Technical Data

General Information		
Chemical Structure	Epoxy Resin Based	
Color	Requested RL colors	
Mixture Density	1,54±0,02 (g/ml)	
Shelf Life	12 months in unopened original package	
Package	20 kg set	
Application Information		
Consumption	0,250 - 0,300 kg/m² in one floor	
Pot life	40 minutes (Can be changed depending on weather conditions)	
Mixture Proportion	8,2 Unit A: 1,8 Unit B (by weight)	
Pot Life	~30 minutes (20°C)	
Performance Information		
Splice Strength to Concrete	> 4 N/mm² (Rupture from the concrete)	(TS EN4624)
Abrasive Strength	~60-70 mg (CS10/1000/1000)	(DIN53109)
Full Strength	7 Days	

Technical information is approximate value obtained from the Tekno Construction Chemicals Laboratory works and are valid for the performance of the finished product in 27 days, which are obtained at +20 °C temperature and 50% relative air humidity rate.

Epoxy Multilayer Coating System Build Up 1mm

Coating System	Product	Consumption
Primer	Teknobond 300	0.30 - 0.40 kg/m²
Levelling	Teknobond 300 + Quartz Sand 0,1-0,3mm leveling mortar	0.40 kg/m² 0.30 kg/m²
Broadcasting	Quartz Sand 0,1-0,3mm	1 kg/m²
Coating	Teknobond 600	0.6 kg/m²



Substrate Requirements
Pull off and compressive strength

The concrete substrate must be sound and of sufficient compressive strength minimum 25 N/mm²) with a minimum pull off strength of 1.5 N/mm².
The substrate must be clean, dry and free of all contaminants such as dirt, oil, grease, coatings and surface treatments, etc.
If in doubt, apply a test area first.

Moisture content

Prior to application, confirm substrate moisture content.If > 4% pbw moisture content, Teknobond 300 NB may be applied as a moisture barrier system

Ambient and surface temperature

Ambient and Surface temperature:
Min. +10°C
Max. +30°C

Substrate Preparation

Concrete substrates must be mechanically prepared using abrasive blast cleaning to remove cement laitance, existing coatings and achieve a gripping profile that is clean, dry and free from laitance, dirt, grease, oil and any other form of surface contamination. Vacuum blasting or similar techniques are ideally suited.

Weak concrete must be removed and surface defects such as blowholes and voids must be fully exposed.
Repairs to the substrate, filling of blowholes / voids and surface levelling must be carried out using appropriate products from Teknoself range of materials.
The concrete or screed substrate has to be primed or levelled in order to achieve an even surface. High spots must be removed by e.g. grinding. All dust, loose and friable material must be completely removed from all surfaces before application of the product, preferably by brush and/or vacuum.

The selected method of preparation will depend on the surface condition, environmental constraints and availability of services. The method may be selected on the basis of trial areas, approved by the Contract Administrator.

Substrate Priming and Levelling

Primer:
Make sure that a continuous, pore free coat covers the substrate. If necessary, apply
two priming coats. Apply Teknobond 300 at a consumption of 0.30 - 0.40 kg/m² by means of brush, roller or squeegee.
Average consumption for scratch coats and primer are shown in the table below:

Primer	Teknobond 300	0.30 - 0.40 kg/m²
Levelling	Teknobond 300 + Quartz Sand 0,1-0,3mm leveling mortar Total consumption	0.40 kg/m² 0.30 kg/m² 0.70 kg/m²

Application of Teknobond 300 as a Primer

Make sure, that all substrate requirements are met, such as temperature, moisture content of the prepared substrate etc. Apply Teknobond 300, if the moisture content is below 4%). If the moisture content is above 4%, apply Teknobond 300 NB system as a temporary moisture barrier Apply the mixed material by roller, taking care to ensure good wetting of the substrate but avoiding puddles on the surface. Work within the potlife of the material (15 Minutes at 30°C).
Clean all tools and application equipment with Teknotiner immediately after use.
Hardened and / or cured material can only be removed mechanically.
Freshly applied Teknobond 300 should be protected from damp, condensation and water for at least 24 hours. Teknobond 300 mortar screed is not suitable for frequent or permanent contact with water unless sealed.
Apply by brush, roller or squeegee and work well into the substrate.
When maximum waiting times are expected to be exceeded lightly broadcast with dried quartz sand (0.1 - 0.3 mm) at a maximum of 1.0 kg/m².
After curing, the remaining of the sand should be cleaned with industrial vacuuming equipments.

Mixing and Application of the Scratch Coat

Make sure, that the application of the scratch coat is still within the overcoating time.
Mix Component A and B of Teknobond 300 using an electric or pneumatic stirrer (300 -400 rpm) for at least 2 minutes or longer, until homogeneous colour is obtained.

Mix Ratio of A : B = 2 : 1 by weight
When Parts A and B have been mixed, add the quartz sand and mix for a further 2 minutes until a uniform mix has been achieved.

Mix Ratio of A+B : quartz sand
Surface roughness < 1 mm
0.40 kg/m². Teknobond 300 +
0.30 kg/m². quartz sand (0.1 - 0.3 mm)

Transfer to a clean container and mix again shortly.
Pour onto the floor and then spread it evenly using a twin blade trowel ore squeegee inthe required layer thickness. Work within the potlife of the material (15 minutes at 30°C) .
Clean all tools and application equipment with Teknotiner immediately after use.
Hardened and / or cured material can only be removed mechanically.
After curing, grinding of the whole area is recommended to remove high spots.

Application of the scratch coat by squeegee or trowel to the required thickness

Mixing of Teknobond 600

Prior to mixing, stir part A mechanically. When all of part B has been added to part A,
mix continuously for 2 minutes until a uniform mix has been achieved.
To ensure thorough mixing pour materials into another container and mix again to
achieve a consistent mix.
Over mixing must be avoided to minimise air entrainment.
Please refer to section 'Mixing of Tekobond 300"

Application of Teknobond 600

Make sure, that the application of Teknobond600 is still within the overcoating time.

Seal coat:

Sealer coats can be applied by squeegee and then back-rolled (crosswise) with a shortpiled roller.
Clean all tools and application equipment with Teknotiner immediately after use.
Hardened / cured material can only be mechanically removed.