RachTR®

PU-CEM20

RachTR PU-CEM20 is a four-component polyurethane-concrete floor system. This flowable system is applied at a thickness of 3–9 mm and forms a smooth surface. RachTR PU-CEM20 is extremely tough and has many physical properties that exceed those of typical concrete.

PRODUCT BENEFITS

- Excellent levelling properties
- Antimicrobial
- Seamless flooring
- High durability and chemically resistant
- Easy to clean and maintain

COVERAGE

Part A: 7.6 kg/m2 @ 4 mm thickness
Part B: 9.5 kg/m2 @ 6 mm thickness

NOTE: These figures are theoretical, due to the wastages and the variety and nature of substrates practical coverage figures may be reduced.

TECHNICAL INFORMATION

Pot Life: 8-10 minutes

Curing time:
(Touch Dry): 20-30 minutes
(Full Cure): 24 hours

RECOMMENDED FLOORS

- Floors with heavy traffic movements like automobiles
- Warehouses
- FMCG
- Engineering industries (light & heavy)
- Chemical and fertilizer plants
- Bottling plants
- Steam cleaning areas in pharma

PACK SIZE

Part A: 2.52 kg
Part B: 3.21 kg
Part C: 13.00 kg
Part D: 0.5 kg

The above information is based on the latest stage of our development and application technology. Due to multiplicity of influencing factors, this information must be considered as nonbinding. Because conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.

RachTR®

PU-CEM20

TECHNICAL DATA

TYPICAL PROPERTIES

Temperature Resistance	Internal Thermal Exposure Test	-25°C to +100°C (6 mm); No crack -45°C to +120°C (9 mm), No crack
Fire Resistance	BS 476: Part 7	Surface Spread of Flame: Class 2
Slip Resistance	EN 13036-4:2011 (TRRL Rubber)	Dry: 63; Wet: 47
Bond Strength	ASTM D4541 (Pull-off)	>1.5 MPa (Concrete Failure)
Impact Resistance	ISO 6272-2:2011	No crack observed at 1 Meter height
Water Permeability	Karsten Tube	Impermeable
Water Vapour Transmission Rate	ASTM E96	3.8 g/m² (24 Hrs)
Abrasion Resistance	ASTM D4060 (Taber Abrader), CS17 wheels, 1 kg load	0.023 g loss/1000 cycles
Coefficient of Thermal Expansion	ASTM C531	3.52×10^{-5} /°C

MECHANICAL PROPERTIES

Compressive Strength	BS 6319 Part 2	>60 N/mm²
Flexural Strength	BS 6319 Part 3	>20 N/mm²
Tensile Strength	BS 6319 Part 7	>10 N/mm²
Bond Strength	ASTM D 7234 (Pull-off)	>1.5 MPa

The above information is based on the latest stage of our development and application technology. Due to multiplicity of influencing factors, this information must be considered as non binding. Because conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any us of this information.

RachTR®

PU-CEM20

TECHNICAL DATA

CURING CHARACTERISTICS

Light Traffic	36 h (10°C)	24 h (20°C)	12 h (30°C)
Full Traffic	72 h (10°C)	48 h (20°C)	24 h (30°C)
Full Chemical Cure	10 d (10°C)	7 d (20°C)	6 d (30°C)

INSTRUCTIONS

METHOD OF APPLICATION

SUBSTRATE PREPARATION
The concrete or screed substrate must be hard, sound and free of dust and other barrier materials such as paint, lime coatings, plaster, curing agents, laitance, adhesive residues etc. that will inhibit adhesion to the substrate. Remove bond-inhibiting materials such as oils, grease, wax, fatty acids, and other contaminants. (This can be accomplished by the use of detergent scrubbing, low pressure water cleaning, steam cleaning, or chemical cleaning. Acids and alkalis can be removed by neutralizing to form a water soluble salt and then high pressure water cleaning). Contaminated concrete surfaces should be mechanically prepared, either by grinding or contained shot blasting equipment or similar, and be vacuumed clean prior to applying RachTR PU-CEM20. Concrete defects such as voids, bug holes, excess porosity, and physical and chemical damage are usually filled or repaired prior to the installation of the Flooring system. (Materials such as slurries, mortars, and polymer concrete are used to level, smooth and patch concrete surfaces).

PRIMING
Use suitable primer depending on substrate condition to ensure maximum product performance. Preferably scratch coat of RachTR PU-CEM20 is recommended.

MIXING
The contents of Part A, Part D pigment sachet and Part B of RachTR PU-CEM20 must be first mixed together for 1 minute, using forced action, in a suitably sized mixing vessel. The contents of Part C the powder component should then be introduced into the mixed resin and mixed together for a further 2 minutes to create one homogeneous mix.

APPLICATION
For flooring applications, the mixed material should be applied to the prepared and primed surface after 24 hours of priming, using a trowel to achieve the desired thickness. As soon as the product has been laid and as work progresses, the surface should be gently rolled with a spiked roller in order to provide an even surface appearance. Do not re-roll later.

DRYING TIME
The floor can be returned to full service in 12 – 24 hours at 30° C.

CHEMICAL RESISTANCE
RachTR PU-CEM20 is resistant to following chemicals tested for about 7+ days (Immersion Testing)

- Dilute mineral acids, including hydrochloric (< 35%), phosphoric (< 50%), and sulfuric (< 30%)
- Alkalis, including potassium hydroxide to a 50% concentration.
- Some dilute organic acids such as acetic (25%), formic, citric, lactic and uric
- Fats, oils, and sugars
- Mineral oils, diesel fuel, kerosene, and gasoline
- Most organic solvents, including aliphatic and aromatic hydrocarbons and alcohol

The above information is based on the latest stage of our development and application technology. Due to multiplicity of influencing factors, this information must be considered as non binding. Because conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any us of this information.

RachTR®

PU-CEM20

INSTRUCTIONS

CAUTION

This product is intended for use by trained and experienced professionals only. The applicator is responsible for ensuring that the substrate is suitable and that the product is mixed and applied in accordance with the manufacturer's Technical Data Sheet and application guidelines. Any deviation from the recommended application procedure due to site conditions should be approved by the manufacturer's technical representative before commencement of work.
The information provided is based on laboratory testing and practical experience. As site conditions and methods of application are beyond the manufacturer's control, no warranty is expressed or implied other than the quality of the product supplied. Users are advised to conduct suitability trials before full-scale application.

STORAGE & SHELF LIFE

Store the product in its original, unopened, tightly sealed containers in a cool, dry, and well-ventilated area at temperatures between 2°C and 30°C. Protect from direct sunlight, moisture, frost, and excessive heat. When stored under the recommended conditions, the product has a shelf life of 6 months from the date of manufacture.

SAFETY

For professional use only. Avoid contact with skin and eyes. Wear suitable personal protective equipment (PPE), including chemical-resistant gloves, safety goggles, protective clothing, and, where necessary, appropriate respiratory protection. Do not inhale vapours or dust generated during application. In case of contact with skin or eyes, rinse immediately with plenty of clean water and seek medical advice if irritation persists. Refer to the latest Safety Data Sheet (SDS) for detailed information on safe handling, storage, first aid measures, and disposal.

The above information is based on the latest stage of our development and application technology. Due to multiplicity of influencing factors, this information must be considered as non binding. Because conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any us of this information.