

TECHNICAL DATA

Revision Date 01/2008

SPRAYDECK RAPID

Product Codes

ACR17 Packaging listed overleaf

Description

Spraydeck Rapid is a specially formulated blend of fine Portland cement powders, graded ASR resistant sands and 3mm ASR resistant aggregates. The mix design includes micro fibres, a synergistic blend of admixtures with an acrylic polymer and thixotropic anti washout agent. The product is specifically designed for dry sprayed applications and is pre-packed ready for site use. When mixed with water the product produces a shrinkage compensated, homogenous, sprayed concrete. The sprayed product is thixotropic, non-slumping and set accelerated allowing high build with minimum rebound. The concrete is dry sprayed and develops a rapid gain in early compressive strength, reaching up to 25N/mm² in 2 hours.

Spraydeck Rapid is packaged in 25kg, durable, moisture resistant bags ready for loading into spray application plant.

The inclusion of microsilica and acrylic polymer produces an applied product that is strong bonding, has low permeability and is long term durable. The incorporation of the sand and aggregates of the un-reactive type gives a product that is safe from ASR attack. The product is chloride and ferrous metal free designed for safe use in contact with reinforcing steel. Placed by dry spray, the product is extremely stable under pressure and will not segregate or bleed. Applications up to 100mm per pass may be achieved

Uses include: Situations that require a quick gain

- in early compressive strength.
- Rapid spray applied repair concrete.
- Sprayed coverage to deck systems.
- Protective layering to membrane systems.
- Protective coatings in mechanically aggressive environments.
- Extention of sections on existing structures.

Examples include:

Marine defences, tunnels, culverts, rapid strength barriers and moving water situations

Standards

Spraydeck Rapid has been tested in accordance with appropriate parts of the following standards:
B.S.4551 B.S.4550 B.S.1881 A.S.T.M.C827-87

Specification Outline

Concrete repairs, extensions, replacements and protection shall be carried out using Spraydeck Rapid as manufactured by Tecroc Products Ltd. The product must be stored, handled and placed strictly in accordance with the manufacturer's instructions.

Quality Assurance

Tecroc Products Ltd is a firm of Assessed Capability. The Company's quality system conforms to BS EN ISO 9001:2000 and is assessed by SGS Ltd Systems and Services Certification.

Typical Concrete Properties @ 20 °C

Water content 14% by weight

Added at the nozzle

Compressive Strength Tested To BS 1881

2Hours	1 Day	7 Days	28 Days
25N/mm ²	45N/mm ²	55N/mm ²	70N/mm ²

Tensile Strength 6.0N/mm² @ 28 days

Flexural Strength 20N/mm² @ 28 Days

Consistency Stiff concrete

Setting times to BS 4550 Initial 7 minutes
Final 15 minutes

Volume stability Non shrink to ASTM C827

Compressive modulus 25 - 30kN/mm²

Coefficient of thermal expansion 9 - 11x10⁻⁶ / °C

Density 2110kg/m³



Grouts



Structural Support Mortars



Concrete Repair Products



Construction Adhesives



Resin Et Cementitious Anchors



Highway Products



Coatings



Waterproofing



Ground Engineering

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Instructions For Use

Preparation

Correct and proper preparation of the substrate is essential. Remove all contamination and weak material from the surface to produce a strong, sound substrate with a good mechanical key. Any steel reinforcing must be carefully prepared.

Remove any dust and debris from the surface to be sprayed. Thoroughly wash, and soak the substrate for several hours before applying the material. Remove any standing water prior to application.

Mixing

No mixing is required as Spraydeck Rapid is applied using a dry delivery spraying process. The "mixing" water is introduced at the spray nozzle.

Placing

Spraydeck Rapid is placed using proprietary construction plant. Loading and application should be carried out in accordance with the instructions given by the plant manufacturer.

Curing

Spraydeck Rapid is cured using Polycure. As soon as the concrete is in place, immediately spray the curing agent at the rate of 10m²/litre. During adverse weather conditions, such as high temperatures and drying winds, a second coat should be applied as soon as the first coat has dried.

Precautions

Health and Safety

Spraydeck Rapid is alkaline when mixed with water and should not come into contact with skin or eyes. Avoid inhalation of dust during mixing and wear safety glasses, dust mask and gloves. If skin contact occurs wash thoroughly with clean water. Should eye contact occur rinse immediately with plenty of clean water and seek medical advice.

Spraydeck Rapid contains 3mm glass micro fibres. Full health and safety data are given in Product Safety Data Sheet.

Fire

Spraydeck Rapid is non-flammable

Yield

Each 25kg bag of Spraydeck Rapid will yield approximately 13.5 litres of mixed material.

Storage And Shelf Life

Spraydeck Rapid will have a storage life of 6 months in unopened bags when kept in dry conditions at a temperature between 5°C and 45°C. Storage at higher temperatures or high humidity may reduce shelf life.

Packaging And Ordering

Spraydeck Rapid is supplied in 25kg valvesack bags.

25kg valvesack bags Product Code ACR17

Polycure is supplied in 5 litre polybottles
5 litre polybottles Product Code AF03

For further information and sales please contact your local Tecroc Products office as listed below.

Tecroc Products Ltd products are guaranteed against defective materials and manufacture. Products are sold subject to the Tecroc Products Ltd Terms and Conditions of Sale, copies of which are forwarded on invoice and are available on request. Tecroc Products Ltd endeavors to ensure that the above data and any further advice is correct, however, it cannot accept any direct or indirect liability for the use of its products as such usage is beyond its control.

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