**TECHNICAL DATA** 

ACR17 Packaging listed overleaf

**Product Codes** 

Description

SPRAYDECK RAPID

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

Spraydeck Rapid is packaged in 25kg, durable,

moisture resistant bags ready for loading into spray

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 unreactive 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

up to 25N/mm<sup>2</sup> in 2 hours.

application plant.



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Concrete Repoir Products





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Uses include:

pass may be achieved

systems.

Sprayed coverage to deck Protective layering to membrane systems. Protective coatings in mechanically aggressive environments. Extention of sections on existing structures.

Situations that require a quick gain in early compressive strength. Rapid spray applied repair concrete.

# **Examples include:**

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

# **Standards**

3.5.2

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 9002;1994 and is assessed by SGS Yarsley International Certification Services Ltd.

# 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 <sup>2</sup>	45N/mm <sup>2</sup>	55N/mm <sup>2</sup>	70N/mm <sup>2</sup>
Tensile Strength		6.0N/mm <sup>2</sup> @ 28 days	
Flexural Strength		20N/mm <sup>2</sup> @ 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 $9 - 11 x 10^{-6} / {}^{\circ}C$			
Density		2110kg/m <sup>3</sup>	

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PRODUCTS

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# **SPRAYDECK RAPID**

# **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  $10m^2$ /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 12 months in unopened bags when kept in dry conditions at a temperature between  $5^{\circ}$ C and  $45^{\circ}$ 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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