

STEEL REINFORCEMENT PROTECTOR 841

Class R7 Reinforcement Corrosion Protection

USES

Corrosion preventative, flexible coating to protect steel reinforcement prior to the application of the relevant **FLEXCRETE REPAIR MORTARS**.

ADVANTAGES

- Brush applied in two coats with minimal inter-coat waiting time.
- Economic coating gauged as required to the correct consistency using mixing kit provided.
- High alkalinity and corrosion inhibitors rapidly reinstate passivating layer around reinforcement to give long term corrosion protection.
- Tolerant to lower levels of steel preparation.
- Dense matrix protects the steel from aggressive acid gases, moisture and chlorides.
- High insulation properties prevent further electrochemical corrosion.
- Produces a hard coating with a degree of elasticity.
- Excellent adhesion to steel ensures adequate pull-out resistance is achieved.
- Non toxic when cured.

COMPLIANCE

CE marked in accordance with BS EN 1504 Part 7. Authorised under Regulation 31 for use in the supply of drinking water. Approved by the BBA, Certificate No. 05/4276.

PRODUCT DESCRIPTION

STEEL REINFORCEMENT PROTECTOR 841 consists of two components, a cementitious powder and a polymer dispersion which react chemically together to passivate, with the aid of corrosion inhibitors, and protect steel reinforcement. **STEEL REINFORCEMENT PROTECTOR 841** has excellent adhesion to steel and concrete allowing high bond strengths with **FLEXCRETE REPAIR MORTARS**. **STEEL REINFORCEMENT PROTECTOR 841** forms a highly alkaline coating with a degree of elasticity which not only protects the steel from aggressive acid gases, moisture and chlorides, but passivates the steel surface chemically to prevent further rust formation.



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EN1504-7: Reinforcement corrosion protection product
 For uses other than low performance requirements

Shear Adhesion BS EN 15184: Pass
 Corrosion Protection BS EN 15183: Pass
 Dangerous Substances: Complies with 5.3

TECHNICAL DATA

Mixed Colour:	Grey/Green
Mixed Density:	1800 kg/m ³
Min Application Temperature:	5°C
Max Application Temperature:	35°C
Working Life (Approx):	1 hour at 20°C

MECHANICAL CHARACTERISTICS (TYPICAL)

Compressive Strength:	32 MPa
Flexural Strength:	10.5 MPa
Water Permeability:	6.00 x 10 ⁻¹⁶ m/sec i.e. 2mm 841 = 1000mm of typical concrete
Oxygen Diffusion Coefficient:	D _{O2} =5.24 x 10 ⁻⁵ cm ² s ⁻¹ (Normal Concrete: D _{O2} = 2.12 x 10 ⁻³ cm ² s ⁻¹) i.e. 2mm 841 = 100mm of typical concrete
Chloride Ion Diffusion:	Taywood Test No steady state flux of chloride ions after a test period of over 21 years

APPLICATION DATA

Application Guide available on request.

PREPARATION

Reinforcement should be cleaned, preferably by the use of wet grit blasting to remove any loose rust or scale, back to a bright metal surface finish such as to Sa 2½, as defined in BS 7079: Part A1/ISO 8501 (SSPC.SP10) where possible. Alternatively, shot, water or equivalent blast cleaning techniques may be used.

If chlorides are absent from the concrete or environmental constraints preclude the use of blast cleaning, hand held power tools capable of achieving the necessary preparation can be used. Metal prepared in this way should be to St 2 or St 3 as defined in BS 7079: Part A1/ISO 8501 (SSPC.SP2 or SSPC.SP3).

MIXING

Mix as much **STEEL REINFORCEMENT PROTECTOR 841** to apply within the working life of the material. Place sufficient Component A (liquid) into a suitable mixing container and add the corresponding quantity of Component B (powder).

Initial Mixing Ratio:	Component B : Component A	3:1 by volume
	Component B : Component A	4:1 by weight

Mix together thoroughly for 2-3 minutes to a lump free consistency. Smaller amounts are mixed by hand, and larger amounts with a low speed electric mixer in order to entrap as little air as possible. The mixed materials should have a brushable, barely dripping consistency. If necessary, the consistency can be adjusted by the addition of one or other of the two components.

DO NOT ADD WATER OR OTHER MATERIALS TO THIS PRODUCT.

PLACING

Apply the first coat, by brush, onto the reinforcement as soon as possible, but no longer than 24 hours after preparation. Apply the coating to a thickness of approximately 1mm and ensure complete freedom from pin-holes, voids and misses. To give total protection a second coat must then be applied when the first is stable but not fully cured, typically 30-90 minutes (maximum 7 days). Inspect on completion then spot repair, if necessary, to ensure the reinforcement is fully protected by the dense, impervious and highly alkaline protective coating. Avoid overpainting onto the adjacent concrete.

Ideally within 2 to 6 hours (dependent upon ambient temperature) of application of the second coat, make good any areas of missing, spalled or removed concrete with the appropriate **FLEXCRETE REPAIR MORTAR**.

CLEANING

All tools should be cleaned with water immediately after use.

SHELF LIFE AND STORAGE

12 months shelf life if stored in dry, frost free conditions with unopened containers at moderate temperatures not greater than 25°C.

PACKAGING AND COVERAGE

Pack Size:	5kg composite weight
Coverage:	A 5kg pack applied in two coats is sufficient for approximately 45 linear metres of 10mm diameter steel bar

SAFETY DATA

Safety Data Sheet available on request.



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