

Polymer Admixture

DESCRIPTION

TamCrete 46 is a liquid, water-based, styrene butadiene polymer latex with high bonding characteristics. It is stable under wet alkaline conditions forming a reinforcing polymer matrix within cementitious mixes.

KEY BENEFITS

- > Dramatically improves the adhesion / bonding of cementitious mixes
- > Effective plasticiser, giving increased workability and cohesion
- > Allows reductions in water content to improve durability and strength without loss of workability
- > Excellent waterproofing admixture which is alkali stable in cementitious mixtures
- > Reduces shrinkage and cracking in repair and screeding mixes
- > Good freeze / thaw resistance

TYPICAL APPLICATIONS

- > Bonding of new to old concrete
- > Concrete repair
- > Flooring mixes for screeding and patching
- > Waterproof renders to tanks
- > Tiling and setting mortars

TECHNICAL DATA

TamCrete 46	
Appearance	White liquid
Solids content	46 - 48%
Density	1.02 at 20°C
Particle size	0.20 µm

All technical data stated herein is based on tests carried out under laboratory conditions.

APPLICATION GUIDELINES

In-service details depend to a great extent on the mix, design and polymer content. It is generally noted that at fairly dry consistencies, mixes containing higher amounts of TamCrete 46 show increased flexural, tensile and adhesive strengths. Generally, it is not cost effective to use TamCrete 46 at dosages higher than 30% by weight of cement. Actual mix details are shown in the technical data tables.

Surface Preparation

In all situations the surface must be clean, free from laitance, dust, oil, grease and other contaminants and profiled to produce a receptive surface. The use of grinding or scabbling machines is recommended for large areas.

Cut back the edges of repair area; avoid feather edging the repair.

Exposed steel should be grit blasted or wire brushed to a bright finish and coated with a bond coat before application of the mortar.

Mix A Bond Coat

Objective: Provision of bond/adhesion coating to concrete, masonry or brick surfaces to accept cementitious renders, screeds or repair mixes.

Mix A	
TamCrete 46 : Cement	1:2 parts by weight 1:1 parts by volume
Coverage	1 - 1.2 kg/m ²
Properties	
Consistency	Brushable viscous slurry
Bond Strength BS 6319: Part 4	28.6 MPa

Application for Bond Coat

Mix the cement into the TamCrete 46 until cohesive. Use a stiff brush to apply a thick coat to the wet surface. Work well into the surface. Application of concrete renders and mortars should take place while the bond coat is still wet. DO NOT apply over dry bond coats. In this case, hand scabble the dry coat before applying a further bond coat. Bond coats remain 'tacky' for approximately 20 minutes depending on ambient temperature.

Mix B Adhesive Mortars

Objective Adhesive bonding of slip bricks, tiles, and mosaics. Grouting and pointing mortars with enhanced chemical resistance.

Mix B	
Cement	50 kg
Coarse clean sand	125 kg
TamCrete 46	14 litres
Water	3 - 4 litres
Yield	0.1 m ³
Properties	
Consistency	Plastic, trowellable mortar
Bond strength BS 6319: Part 4	26.2 MPa
Compressive strength BS 6319: Part 2	45.0 MPa @28 days
Flexural strength BS 6319: Part 3	8.2 MPa @28 days

Whilst any information and/or specification contained herein is to the best of our knowledge, true and accurate, we always recommend that a trial be carried out to confirm suitability of the product. Please note regional climatic conditions may cause a variation in the performance of the product. No warranty is given or implied in connection with any recommendations or suggestions made by us or our representatives, agents or distributors. The information in this data sheet is effective from the date shown and supersedes all previous data. Please check with your local Normet office to confirm that this is current issue.

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Application for Adhesive Mortars:

Mix TamCrete 46 with water then add sand and cement and mix until cohesive.

Dampen/wet the prepared substrate and the back of the brick or tile. Apply the bond coat to the substrate, then apply a 5 - 6 mm render with a notched float over the WET bond coat. Press the brick or tile into the render. The same mix should be used later for grouting.

Mix C Floor Patching, Floor Screeds, Renders, Concrete Repair

Objective Reinstatement of old floors, new floor screeding general purpose concrete repair and renders.

Mix C		
	Thin Section 5 - 15 mm	Thick Section 10 - 50 mm
Cement	50 kg	50 kg
Coarse clean sand	125 kg	75 kg
Granite, 3 - 6 mm chips	--	100 kg
TamCrete 46	14 litres	9 litres
Water	3 - 5 litres	5 - 10 litres
Yield	0.1 m ³	0.1 m ³
Properties		
	Thin Section	Thick Section
Bond strength BS 6319: Part 4	29.0 MPa	29.0 MPa
Compressive strength BS 6319: Part 2	1 day	8.2 MPa
	7 day	3.71 MPa
	28 day	49.8 MPa
Flexural strength BS 6319:Part 3	28 day	9.0 MPa
		9.5 MPa
Total water absorption	1.0%	0.9%

Application for Floor Patching, Floor Screed, Renders, Concrete Repair:

Dampen/wet the prepared substrate, apply a bond coat and **while still wet**, place the screed, repair or render mix using a wooden float to apply and compact. Repair and screed mixes are best placed at a semi-dry consistency, rammed into place. Finish with a steel float. Good curing is essential to prevent drying and cracking.

Mix D Waterproof Renders

Objective Sealing and waterproofing concrete water tanks, basements and exterior foundation tanking.

Mix D	
Cement	50 kg
Coarse clean sand	125 kg
TamCrete 46	14 litres
Water	3 - 5 litres

Application for Waterproof Renders:

After surface preparation and wetting, apply a brush coat of bonding mix horizontally. When almost touch dry, apply a further coat vertically. Each coat should be 10mm thick. Lightly scratch the surface of the second coat when nearly touch dry and leave for 24 hours to cure.

Apply a further bond coat and while it is still wet trowel on the render coat at a thickness of up to 10 mm. Additional render coats can be applied as required at 1 - 2 hour intervals. Close up the final coat with a steel finishing float. Mechanical properties are similar to those of the thin section TamCrete 46 floor screed.

Thorough curing is essential on all exposed surfaces, particularly in dry or windy conditions. Curing methods such as water misting, polythene sheeting and similar techniques are suitable.

PACKAGING

TamCrete 46 is supplied in 5 kg and 20 kg drums. Packaging size may vary subject to local regulations and requirements.

STORAGE

TamCrete 46 should be stored at room temperature (min 10°C and max 38°C), kept dry and out of direct sunlight. If these conditions are maintained and the product packaging is unopened, then a shelf life of one year can be expected.

HEALTH & SAFETY

TamCrete 46 should only be used as directed. We always recommend that the Safety Data Sheet (SDS) is carefully read prior to application of the material. Our recommendations for protective equipment should be strictly adhered to for your personal protection. The Safety Data Sheet is available upon request from your local Normet representative.