



Product Information Sheet

March 2014

FURAN ST

Description

Furan ST is primarily a bedding and jointing mortar for fixing acid-proof bricks and tiles in temperate climates (15 - 30°C). It is provided in two-component format, a Furan solution and a catalysed mineral filler powder.

Typical Uses

Furan ST is recommended as a jointing and bedding mortar in most applications where strong acid/alkali materials are present, in particular for general tiling / masonry work and for trenches, pits and storage areas. As Furan ST is also impervious, it is ideal for fixing linings in holding vessels. It can be used in conjunction with glass cloth and mats, to build up an in-site tank lining.

Advantages

In addition to its excellent chemical resistance, Furan ST is a fast setting product, with impressive mechanical properties. It also offers impressive resistance against solvents and organic compounds. It is a furfural – free composition. It can be used for operating conditions up to 180°C.

Chemical Resistance

Full details are available on ACCS website: www.protectivelinings.co.uk. Furan ST will not withstand fluorine based acids and salts, and some strong oxidizing acids, 'C' grade carbon-filled is recommended for these applications.

Surface Preparation

For all pre-existing surfaces of metal or concrete, abrasive blast or scarify to remove all laitance and surface contaminants. Due to catalyst components of the Furan ST mortar, a primer base should be applied before application. Furan should never be applied directly onto concrete as this can lead to an insufficient setting process. The surface should be dust-free and dry and the ambient temperature should be above the dew point of air. Prepare the substrate with either PE120 membrane (metal) or AC90 primer (concrete) to ensure an adequate bond with the Furan ST. For new-build concrete constructions, a damp tolerant primer AC95 is recommended and can be applied within 48 hours of concrete set, potentially expediting any construction schedule. Furan ST mortar can then be applied once priming has been completed.

Application

The mortar comprises a solution and a catalysed powder. Nominal mortar joints of up to 4mm are recommended. Values are an intended guide.

Mixing Ratio	4 parts powder to 1 part solution
By weight	~25kg powder to 6.25kg solution
By volume	~4L powder to 1L solution

Using an inclined mixer or paddle mixer, place the powder in mixing vessel and add the solution. Mix thoroughly for at least 3 minutes; the powder will 'wet' out to a mortar.

Application should be made with either float or trowel to all jointing surfaces to ensure a complete chemical barrier. All tools and equipment should be cleaned off with solvents and damp cloths to ensure their continued use. If any mortar has spread over on to the tiles or bricks and a tidy clean finish is required, rub the tiles or bricks, with a damp cloth before setting takes place. After setting, it will be impossible to clean off any overspill mortar.

Pot-Life

at 5°C – 60mins
at 10°C – 40mins
at 20°C – 25mins

An initial set occurs approximately 4hours after mixing, with a full chemical cure occurring after 48hours. Mortar should never be exposed to water, steam or chemical environments before the mortar is completely cured.

Note: Do not mix more material than required by pot-life. It cannot be reconstituted. Never add unapproved materials to the mix, in particular water. After mixing spread out on to a flat surface (eg the lid of a 200L metal drum) to avoid self – generated heat. Large mixed volumes that are not spread out will flash set, becoming extremely hot and producing smoke. The flat surface should be cleaned after each batch mix.



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Coverage

For fully bedded and jointed (4mm) bricks of dimensions:

Brick/Tile	Powder	Solution	Unit
230x114x75mm (Wall – 114mm)	18	4.5	Kg/m ²
230x114x65mm (Wall – 114mm)	20	5	Kg/m ²
230x114x50mm (Floor – 50mm)	10	2.5	Kg/m ²
230x114x38mm (Floor – 38mm)	9	2.3	Kg/m ²
230x114x20mm (Floor – 20mm)	8	2	Kg/m ²

Values are approximate requirements.

Standard Packing

Powder – 25kg lined polyweave bags (40 per pallet)

Solution – 25kg in 25L UN drums (24 per pallet)

Storage

Store in a cool, dry, frost-free place. Normal storage conditions in up to 25°C should provide shelf life of:

Powder – 12 months

Solution – 12 months

Do not store a combined stack of solution and powder components. Accidental leakage could lead to flash setting of material, producing smoke.

Safety

Safety data information available on request. Adequate ventilation must be provided whilst work is in progress and is compulsory for closed or indoor applications. The instructions on storage, fire and explosion are to be observed. No releases to the sewers or drains are to be permitted under any circumstances. Always refer to MSDS data sheets for hazard and transport information.

Warranty

We warrant that our products will conform to the description contained in the order and that we have good title in all goods sold. WE PROVIDE NO WARRANTY, WHETHER OF MERCHANTABILITY, FITNESS FOR PURPOSE, OR OTHERWISE, EXPRESS OR IMPLIED, OTHER THAN AS EXPRESSED SET FORTH HEREIN. We are glad to offer suggestions or to refer you to customers using ACCS Ltd cements and compounds for similar applications. Users shall determine the suitability of the product for intended application before using, and users assume all risk and liability whatsoever in connection therewith regardless of any suggestions as to application or construction. In no event shall we be liable hereunder or otherwise for incidental or consequential damages. Our liability and your exclusive remedy hereunder or otherwise, in law or in equity, shall be expressly limited to our replacement of non-conforming goods at our factory or, at our sole option, to repayment of the purchase price of non-conforming goods.

Technical Data

Parameter	Test Method	Unit	Value
Density		kg/m ³	1985
Specific Volume		m ³ /tonne	0.5
Tensile Strength		kg/cm ²	84
Compressive Strength		kg/cm ²	387
Flexural Strength		kg/cm ²	178
Bond strength (wire cut bricks)		kg/cm ³	28
Coefficient of expansion		10 ⁻⁶ °C	14.4
Water absorption		%	0.2
Maximum Operating Temperature		°C	188

Disclaimer

The technical data contained in this document represents the current state of our product knowledge and is for information purposes only. It does not constitute a guarantee or specification.