



URBAN SURFACE PROTECTION
THE TOTAL SURFACE PROTECTOR

USP BRICK-FIX 31 – A2 Firebond

STRUCTURAL ADHESIVE, BS/EN 13501-1 Compliant.

Product Description:

BRICK-FIX 31 – A2 Firebond is a two-part, general purpose solvent free epoxy building adhesive.

This solvent free, general purpose building adhesive is designed for ‘face-up’ applications, in the brick slip industry, for use on panels lintels, arches and chimneys.

Advantages

BRICK-FIX 31 – A2 Firebond is easy to mix and easy to apply, a non-shrink epoxy with excellent chemical resistance, which adheres to almost any surface, excellent sealant qualities which cures down in very low temperatures, easy to pigment & ready to use.

BRICK-FIX 31 – A2 Firebond is “air free” this makes the volume constant and the product can be pumped through high volume binary pumping heads.

Uses:

BRICK-FIX 31 – A2 Firebond has excellent adhesion of brick slips to MgO, MDF, Polystyrene, GRP and cementitious substrates, and for the bonding of concrete materials.

BRICK-FIX 31 – A2 Firebond can bond Brick & Mortar, Stone, Ceramic, Tile or Glass units.

BRICK-FIX 31 – A2 Firebond can also bond metals including, Steel, Stainless Steel, Iron, Aluminum, Copper, Marble, Powder Coated and Wooden Structures.

BRICK-FIX 31 – A2 Firebond can be used for bonding post-tensioned precast concrete bridge segments. Bedding In (eg; floor tiles), gap & crack filling, filling in voids, grouting, and is ideal for “face-up” applications.

BRICK-FIX 31 – A2 Firebond comes in 5 and 20 Kg Units

BRICK-FIX 31 – A2 Firebond has a coverage of 15.38m² @ 1mm Thickness for a 20Kg unit

Chemical Composition: 2K Epoxy Paste.

Colour: Base – Light Grey

Activator – Dark Grey

Density: 1.5 kg/ltr @ 25°C.

Flashpoint: > 55°C.

Chemical Resistance: mild acids and alkalis, water and de-icing salts.

VOC Content: 0.0g/litre

Gel/Cure Times

Working Times @ Different Ambient °C for 100g mass of mixed product

Temp °C	5	10	15	20	25	30
Gel Time (mins)	270	225	145	90	60	45
Cure Time (mins)	1800	1020	720	360	210	180





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Mixing

BRICK-FIX 31 – A2 Firebond is mixed 3:1 by weight or volume of the Resin + Hardener components.

Mix the two parts together thoroughly at the correct ratio until even and consistent mixing is achieved. Mixing is best carried out on a smooth board using a wide blade scraper. If necessary, the product can be mixed using a slow speed mechanical mixer.

Directions for Use / Application:

APPLICATION DETAILS:

Surfaces must be sound, clean and dry and free from oil, grease, rust or surface water wherever possible. Smooth surfaces should be abraded beforehand. Always check substrate quality e.g. Concrete surfaces must be in excess of 28 days old.

APPLICATION INSTRUCTIONS:

Apply **BRICK-FIX 31 – A2 Firebond** by trowel, spatula or scraper with a minimum thickness of 1mm. Ensure adhesion takes place while the product is still mobile and tacky. Components should be supported during curing to prevent slippage.

Cleaning: Use a solvent based thinner on tools on uncured material only.

APPLICATION CONDITIONS/ LIMITATIONS:

Substrate Temperature; +5°C to 30°C.

Ambient Temperature; +5°C to 30°C.

Material Temperature; +5°C to 30°C

When applying **BRICK-FIX 31 – A2 Firebond** to damp substrates ensure that the product is worked well into all areas. Following bonding and grouting of the slips we recommend the use of the surface treatment BBA Approved **USP-100** to protect against efflorescence, freeze/thaw, improve the insulation value and extend product life.

BBA APPROVED:

The BBA Agrément Certificate for **BRICK-FIX 31 – A2 Firebond**, epoxy adhesive used for bonding cut bricks and pavers and the fixing of brick slips to cast concrete structural units, stainless steel or powder-coated lintels or GRP substrates under factory conditions. It may also be used on site for the replacement of damaged brick slips.

CERTIFICATION INCLUDES:

- factors relating to compliance with Building Regulations where applicable
- factors relating to additional non-regulatory information where applicable
- independently verified technical specification
- assessment criteria and technical investigations
- design considerations
- installation guidance
- regular surveillance of production
- formal three-yearly review.





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THE KEY FACTORS ASSESSED:

Strength — the adhesive achieves a bond of acceptable strength to the substrates defined in this Certificate.

Resistance to frost damage — the epoxy bond is durable and stable when subjected to freeze/thaw cycling.

Durability — the adhesive is durable and capable of bonding cut bricks and pavers and fixing brick slips to the substrates listed, all of which can have a service life equivalent to similar brick masonry or pavers.

NATIONAL HOUSE BUILDING COUNCIL - Standards 2016:

NHBC accepts the use of **BRICK-FIX 31 – A2 Firebond**, provided it is installed, used and maintained in accordance with this Certificate, and meets the requirements of to NHBC Standards, Chapter 2.1, Requirement R3.

BS/EN 13501-1 APPROVED

BRICK-FIX 31 – A2 Firebond has been extensively tested by Warrington Fire (test report WF415154) to BS/EN 13501-1 and has achieved a classification of;

warringtonfire
Proud to be part of element

Reaction to fire classification: A2-s1, d0

BRICK-FIX 31 – A2 Firebond has achieved this classification on Steel and MgO substrates allowing its use in construction above 18 meters. The high bond strength versatility of this material brings strength and safety to applications at height.

Test Results 3.2.

Test method & test number	Parameter	No. tests	Results	
			Continuous parameter - mean (m)	Compliance parameters
EN 13823	FIGRA 0.2MJ	3, 1	0.00	Compliant
	FIGRA 0.4MJ		0.00	
	THR 600s		0.00	
	LFS		0.00	
	SMOGRA		0.08	
	TSP 600s		0.18	
	Flaming droplets lasting >10s?		None	
			None	
EN ISO 1716	PCS - Brick Slip (a)	3	0.1810 MJ/kg	Compliant
	PCS - Pointing Mortar (a)		0.0940 MJ/kg	
	PCS – Adhesive (b)		3.8751 MJ/m ²	
	PCS – Substrate (a)		0.00 MJ/kg	
	PCS - System as a whole (e)		0.2256 MJ/kg	

The total PCS of both systems is extremely low 0.23 MJ/Kg indicating a very low and consistent value of Non-Combustibility.

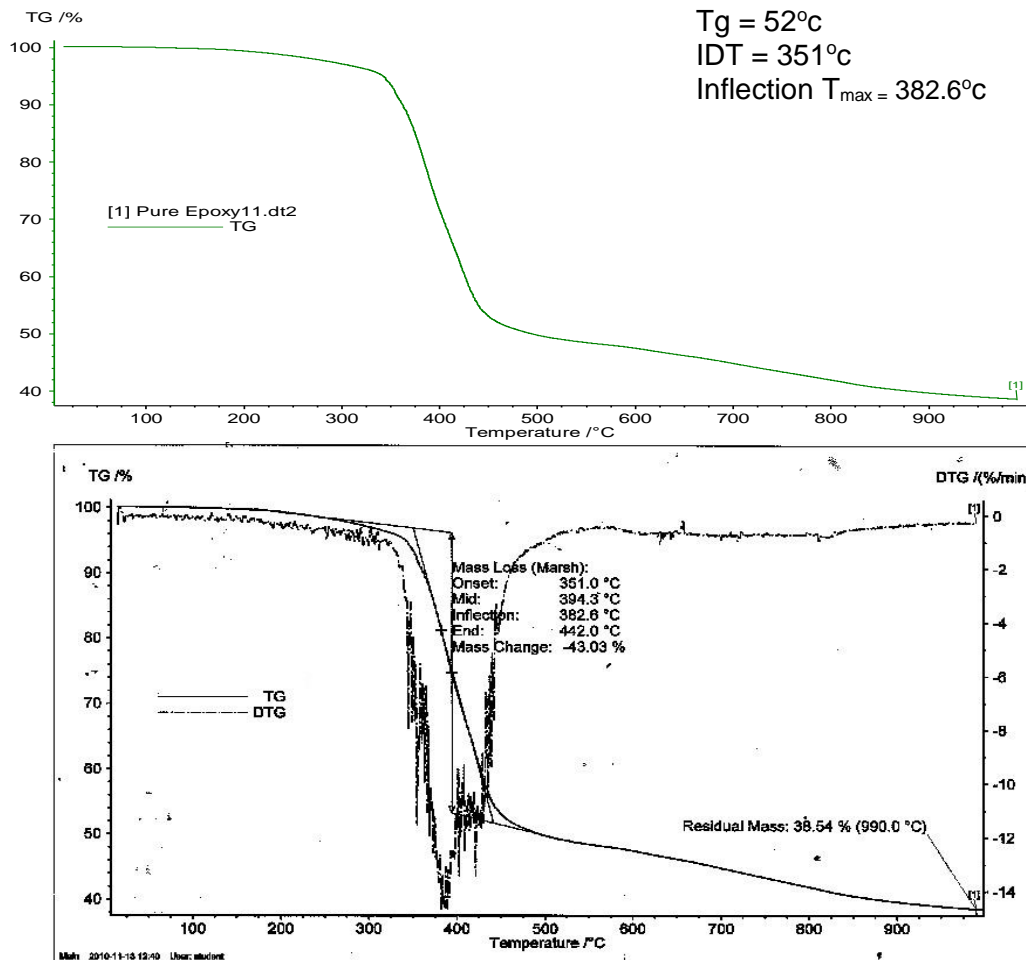


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Thermal stability

The thermal performance of **BRICK-FIX 31 – A2 Firebond** has been characterised using a Netzsch TG-209 Thermogravimetric Analyser. Adhesive is inserted into the furnace at an ambient temperature of 20°C and heated up to 990°C with rate of 25°C per minute

Thermogram for **BRICK-FIX 31 – A2 Firebond**.



Analysis shows that **BRICK-FIX 31 – A2 Firebond** adhesive is thermally stable to 400°C, the product does not combust or promote spread of flame. The use of **BRICK-FIX 31 – A2 Firebond** will not hinder or retract from the performance of intumescent cladding systems.

Storage/Cleaning

Keep in a dry place (between 5°C and 30°C).

Storage: 24 months following the production date when kept in the original unopened container.

Cleaning: Use a solvent based thinner on tools on uncured material only.



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Recommendations/Curing:

Wear protective gloves and glasses, and appropriate clothing whilst using the product.

Notes: The technical data provided is based on laboratory tests and some variations may occur on large areas and substrates of an uncertain nature.

Do not allow the applied product to dry in between application.

Do not apply during rain or frost and when surface and air temperature is $< 5^{\circ}\text{C}$ and $> 30^{\circ}\text{C}$.

Health and Safety:

Respiratory Protection: Under normal conditions of use where adequate ventilation is available, no special respiratory protection equipment is needed. (Avoid emissions on curing)

Hand Protection: Wear domestic gloves.

Skin Protection: Wear protective clothing over exposed areas of skin.

Eye Protection: Wear safety goggles.

If swallowed: Do not induce vomiting. Contact a doctor or a specialist.

KEEP OUT OF THE REACH OF CHILDREN

Please refer to Material Safety Data Sheet.

Legal Notes: See USP Limited Standard Terms & Conditions.

USP is REACH compliant to EU 2015/830

Our technical department is always at your service for further information and advice.

Our technical advice and recommendations given verbally, in writing or by trials are believed to be correct. They are neither binding regarding possible rights of third parties nor do they exempt you from your task of examining the suitability of our products for the intended use. We cannot accept any responsibility for application and processing methods that are beyond our control.

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