

TECHNICAL DATA SHEET

Bakor 790-11 Hot Melt Rubberised Bitumen

Product Description

Bakor 790-11 is a hot applied, rubberised bitumen formulated to provide a monolithic fully bonded roofing and waterproofing membrane. It is a hot poured, fabric reinforced application. Bakor 790-11 is composed of a blend of refined bitumen's, synthetic rubber and mineral stabilizers whilst also containing post-consumer recycled content. It is modified with additives to promote adhesion and improve low temperature flexibility.

Application Fields

Used as a fully bonded, monolithic waterproofing and roofing membrane on horizontal and vertical surfaces in protected roof membrane assemblies (Inverted and Cold). Application areas include but not restricted to podium and terrace decks. Planters, intensive, extensive, brown & biodiverse green roofs, biosolar roofs, Blue roofs, reflective pools, ramps and parking decks.

PRODUCT INFORMATION AND TECHNICAL PERFORMANCE			
Characteristic	Unit	Test Method	Value
Colour		-	Black
Solids content		-	100%
Rate of application	mm	-	Nominal thickness 3mm per single layer/ total 6mm with fabric reinforcement (exc. protection layer)
Coverage	kg/m ²	-	Nominal Weight 6.5kg/m ² in 2 layers (exc. protection layer)
Heating temperature	°C	-	180°C to 200°C
Setting time		-	Immediate on cooling
Low temperature performance	°C	CSGB-37.50-M89	At -25°C No cracking; no loss of adhesion; no delamination
Water absorption	g	CSGB-37.50-M89	Gain 0.10g
Flash point (open cup)	°C	CSGB-37.50-M89/ASTM D 92	291°C
Chemical resistance		-	Resistant to: water, calcium chloride, salt, mild acid and alkaline solutions. Non-resistant to oil, grease or solvents.
Toughness	J	CSGB-37.50-M89	16.0J
Crack bridging capability		CSGB-37.50-M89	No cracking, no splitting, no loss of adhesion
Reaction to fire		EN 13501-1	NPD
Properties in relation to fire		European Commission Directive 2000/553/EC	Unrestricted with stone, screed, or paving cover (BBA 06/4350 Section 10-PS6)
		CEN/TS 1187:2012 Test 4 Test Fire Report No. P120315-1001 Dated 09 Apr 2021 BS EN 13501-5 Classification Report No P120315-1001 Dated 09 Apr 2021	Bauder Inverted Roofing System including Bauder JFRI insulation on Bauder Plastic Pedestals have been independently tested under 40mm concrete paving by BRE Global having achieved B _{ROOF} (t)4 are confirmed as suitable for unrestricted use under Building Regulations.

PRODUCT INFORMATION AND TECHNICAL PERFORMANCE	
Characteristic	
Durability	Under normal service conditions the system will remain waterproof for the design life of the roof in which it is incorporated. (BBA 06/4350 Section 12-PS6)
Limitations	Must be protected by the appropriate access/protection layer. Not intended for use as a permanently exposed surface without the appropriate protection layer, although will tolerate incidental foot traffic, light rubber wheeled traffic until surfacing/landscaping is installed.
Weathertightness	The system will resist the passage of moisture into a building (BBA 06/4350 Section 6-PS6)
Resistance to wind uplift	The system will resist the effects of any likely wind suction acting on the roof. The ballast requirements for inverted specifications should be calculated by a suitably competent and experienced individual in accordance with the relevant parts of BS EN 1991-1-4:2005 and its UK National Annex. The system should always be ballasted with a minimum depth of 50 mm of aggregate. In areas of high wind exposure, the Certificate holder's advice should be sought. Alternatively, concrete slabs on suitable supports can be used. (BBA 06/4350 Section 8-PS6 refers)
Resistance to mechanical damage	The system will accept, without damage, the limited foot traffic and loads associated with the installation and maintenance, and the effects of thermal or other minor movements likely to occur in practice. (BBA 06/4350 Section 9-PS6)
Resistance to penetration by roots	The system will resist root penetration from green roof and roof garden systems. (BBA 06/4350 Section 10-PS6)

Installation Guidance

Bakor 790-11 must be heated indirectly, using a suitable double-jacketed melting machine. The outer shell can either contain a heat transfer oil or air to provide uniform indirect heat to the hot melt compound within the inner shell and must incorporate a powered mechanical agitator.

First Layer of Bakor 790-11

The application of the Bakor 790-11 system to the main deck area should be carried out in a planned, organized manner to achieve an even monolithic application of the system across the deck. The first operation is to evenly coat the deck with Bauder Polymer Primer (shown) or Bauder Quick Dry Bituminous Primer (not shown). Bauder Polymer Primer is preferred due to its quicker drying time and adhesion qualities.



The hot melt membrane is applied in two 3mm thick layers at the combined nominal rate of 6.5kg/m² for the two layers. The first 3mm layer of membrane is installed by pouring the Bakor 790-11 hot melt on the cured Bauder Polymer Primer (shown) or Bauder Quick Dry Bituminous Primer (not shown) and spreading it evenly with a rubber bladed squeegee.



Reinforcement Layer

When the first section of hot melt membrane has been spread and is still hot, the relevant reinforcement layer (usually the Bauder Polyester Fleece) is carefully placed into the first layer of hot melt and rolled out - fully bedding the fleece into the hot melt membrane, taking care not to crease it.



Second Layer of Bakor 790-11

The second 3mm layer of membrane is applied in the same manner as the first – pouring, and evenly spreading the Bakor 790-11 to a 3mm depth

As the installation of the second layer of Bakor 790-11 progresses, the appropriate Access/Protection sheet must be bedded into the membrane while it is still HOT.



Access/Protection Layers

For all work, whether it is roofing, tanking etc the Bakor 790-11 monolithic membrane requires an access/protection layer bedded into it immediately following the application of a second 3mm layer of membrane, to protect the membrane from the trafficking and likely damage from following trades. Also, to allow access onto it to install the landscape finishes i.e. insulation, paving etc.

The type of protection layer will depend on (a) the proposed build-up and (b) the expected period of time that the system is going to be exposed to abuse from following trades.

- The types of access/protection layers approved for use with the Bakor 790-11 monolithic system are:

- Bauder AP1 – Bauder 1.5 mm reinforced modified bitumen membrane.



- Bauder Plant E 42 – Bauder 4.2 mm reinforced modified mineral surfaced bitumen membrane root barrier.



BAUDER AP2 ROOT RESISTANT PROTECTION LAYER

- Bauder AP3 – 3 or 6mm bituminized composite board.



BAUDER AP3 PROTECTION LAYER (LOOSE LAID OVER AP1 LAYER)

At parapet walls Bauder 790-11 should be reinforced by using either Bauder Neoprene Reinforcing Membrane or Bauder Polyester Reinforcing Membrane.

At outlets, soil pipes etc., Bakor 790-11 should be reinforced by using Bauder Neoprene Reinforcing Membrane.

Installation should be carried out by an Approved Contractor in accordance with specification and guidelines as per Bauder technical department.

CERTIFICATION AND ENVIRONMENTAL INFORMATION	
BBA Certificate	Roofing System - BBA 06/4350 product sheet 6 Damp Proofing System - BBA 06/4350 product sheet 5
Environmental Product Declaration (EPD)	Pending
Declaration of Performance (DoP)	-
Declaration of Conformity (DoC)	-
International Standards Organisation (ISO)	ISO 9001:2015 Quality Management Certificates FM 86932 (Canada)
Recycled content	Includes post-consumer content
Recyclable	N/A

Transport: Bakor 790-11 and associated products are transported direct to site from Bauder on artic curtain sided vehicles with no offload facility.
Smaller specialist vehicles such as rigid/moffett/flat bed/pump truck & tail lift are available.

Due to the weight of this material, it must be offloaded via a forklift or crane and cannot be handballed.

Storage Guidance: Ideally Bakor 790-11 and associated products should be stored inside. If, however, outside storage cannot be avoided the products should be stacked clear of the ground on a dry and flat level surface.
Care must be taken to avoid contact with oil, grease, or solvents.

Pack/Packaging Material: The product is packaged in low density polyethylene and enclosed in re-cyclable cardboard boxes with an approximate weight of 22.7kg per box.
The boxes are stacked 48 to a pallet and shrink-wrapped for ease of handling in transport and on site.
Each pallet when fully loaded has approximate dimensions of 1200mm wide x 1000mm deep x 1370 high and weighs approximately 1100kg.

Product Identification: All identification information is printed on the cardboard box.

Handling / PPE: All persons using this product should be fully aware of the manual handling methods as roofing materials are heavy and can cause serious injury. When using this product, installers should be provided with, and wear, suitable personal protective equipment.

Shelf Life: When stored correctly, the product has no stated shelf life.

Disposal Guidance: Bitumen waste needs to be disposed via an authorised disposal contractor to an approved waste disposal site, observing all relevant regulations. (European waste catalogue EWC number 170302 "asphalt tar-free").

Re-use options of product: N/A

Further information/documents: Current documents such as brochures, installation guides etc can be found by visiting www.bauder.co.uk

Safety Data Sheets are designed to provide the necessary information to recipients of substances and mixtures in the EU & UK.

This product is classed as an article; therefore, this product does not have a requirement for a Safety Data Sheet.