SINCE 1934

TECHNOBIT

TECHNOLOGY OF INSULATING MATERIALS



STEPLAY

ROOFING UNDERLAYMENT

SBS Bitumen Underlayment with Polyester Reinforcement and Fleece Finish

THE WISE CHOICE

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Description

STEPLAY is an advanced SBS (Styrene-Butadiene-Styrene) bitumen underlayment designed for superior performance in construction environments. Manufactured using a continuous calendaring process, StepLay integrates high-quality polyester reinforcement to provide outstanding mechanical properties and durability. The polyester carrier is saturated and coated with a specially formulated bitumen compound modified with SBS polymers. This combination ensures excellent thermal stability, mechanical strength, and longevity. The fleece surface finish enhances adhesion and compatibility with a variety of overlay materials, making **STEPLAY** a wise choice for both multilayer and double-layer roofing systems.

Major Features

- Superior dimensional stability ensuring reliable performance as an underlayment.
- Enhanced chemical resistance providing long-term reliability even in challenging scenarios.
- Advanced isotropic mechanical properties to adapt seamlessly to stress-induced movements.
- Excellent elastic behavior with significant elasticity.
- High performance across temperature extremes, making it suitable for diverse climates.

Applications

STEPLAY is engineered for a variety of roofing and waterproofing applications, particularly where high dimensional stability and resistance to stress-induced movements are critical. This underlayment excels in harsh weather conditions and is recommended for:

- Flat and Sloped Roofs: Ideal for medium to large surface areas, providing robust protection and longevity.
- Foundations and Underground Structures: Suitable for installations requiring high resistance to groundwater and soil pressure.
- Roof Decks and Substrates: Effective in protecting structures subject to frequent movements, such as metal decks, insulation boards, and tiled surfaces.

Surface Finish

STEPLAY features a distinctive fleece surface finish that enhances its compatibility with various overlay materials. The lower surface of **STEPLAY** is coated with a polyethylene film, ensuring ease of installation and effective adhesion during the torching application process. The fleece upper surface not only aids in the application of additional layers but also provides a robust finish that improves the overall durability and performance of the waterproofing system.

Polypropylene Woven Fabric



Method of Application

STEPLAY is designed for installation using the torching method, which ensures a secure and durable bond between the underlayment and the substrate. The application process involves the following steps:

- Surface Preparation: Ensure the substrate is clean, dry, and free from any debris or contaminants that could affect adhesion.
- Priming: Apply a TechnoBit bitumen primer to the substrate to enhance adhesion.
- Torching: Unroll the **STEPLAY** underlayment and position it on the substrate. Using a propane torch, heat the lower polyethylene surface of the underlayment until the bitumen starts to melt.
- Adhering: While the bitumen is molten, press the underlayment firmly onto the substrate, ensuring full contact and adhesion. Overlap adjacent sheets by at least 10 cm to create a continuous waterproof layer.
- Sealing: Carefully heat and seal all seams and edges to ensure a watertight finish.

STEPLAY's torch application method provides a secure, long-lasting waterproofing solution, making it an ideal choice for both new constructions and renovation projects.

Storage & Handling

STEPLAY rolls should be kept in an upright position in a flat, properly ventilated and sheltered storage area.

STEPLAY

SBS Bitumen Underlayment with Polyester Reinforcement and Fleece Finish

Properties الخصائص		Test الإختبار	Unit وحدة القياس	Test Method طريقة الإختبار	Tolerance السماحية	Typical Values القيم النموذجية
Dimensional Properties خصائص الأبعاد		Thickness السمك	mm	EN-1849-1	± 5 %	2 / 3
		Mass Per Unit Area الوزن للمتر المربع	kg/m²	EN-1848-1	± 5 %	2.5 / 3.5
		Width العرض	m	EN-1848-1	± 1 %	1
		Length الطول	m	EN-1848-1	± 1 %	15
		Straightness درجة إستواء السطح (الإستقامة)	mm	EN-1848-1	-	± 10
Compound Properties خصائص الخليط البيتوميني		Softening point (R&B) درجة الليونة	° C	ASTM D- 36	± 5	120
Membrane Properties خصائص الغشاء	Mechanical Properties الخصائص الميكانيكية	Tensile Strength (MAX) مقاومة الشد القصوى				
		Longitudinal "طوليا"	N/5cm	EN-12311-1	± 20 %	650
		Transverse "عرضيا"	N/5cm	EN-12311-1	± 20 %	450
		Elongation @ Break أقصى معدل للإستطالة				
		Longitudinal "طوليا"	%	EN-12311-1	± 15	35
		Transverse "عرضيا"	%	EN-12311-1	± 15	40
		Tearing Strength (Nail-Shank) مقاومة التمزق				
		Longitudinal "طوليا"	N	EN-12310-1	≥	250
		Transverse "عرضيا"	N	EN-12310-1	≥	300
		Tensile-Tear Resistance مقاومة التمزق - بطريقة الشد				
		Longitudinal "طوليا"	N	ASTM D- 5147 . D 4073	± 20 %	450
		Transverse "عرضيا"	N	ASTM D- 5147 . D 4073	± 20 %	350
		Resistance to static loading مقاومة الإختراق الإستاتيكي	KG	EN12730 Method A	≥	25
		Resistance to Impact loading مقاومة الإختراق االديناميكي	mm	EN12691 Method B	≥	1000
	Thermal Properties الخصائص الحرارية	Flow resistance @ Elevated Temperature الثبات عند درجات الحرارة العالية	° C	ASTM D-5147, EN-1110	± 10	100
		Cold Temperature Flexibility المرونة عند درجات الحرارة المنخفضة	° C	ASTM D-5147, EN-1109	min.	-15
		Dimensional Stability ثبات الأبعاد				
		Longitudinal "طوليا"	%	EN-1107-1	-	± 0.3
		Transverse "عرضيا"	%	EN-1107-1	-	± 0.3
	Miscellaneous Properties خصائص أخرى	Tightness Water مقاومة نفاذية الماء	60 Kpa	EN-1928:2000	-	Passed
		Water Absorption درجة امتصاص الماء	%	ASTM D-5147,UNI 8202/22	-	± 1
		Vapour Permeability نفاذية بخار الماء	μ	UNI 8202/23 , EN1931	-	8000
		Fatigue resistance on cracks مقاومة الكلال فوق الشقوق	500 cycles	UNI 8202/13	-	Passed
			200 cycles		-	Passed
		Joints Tensile Strength مقاومة الشد عند مناطق التراكب				
		Longitudinal "طوليا"	N/5cm	EN-12317, UNI 8202/30	-	Equal To Membrane
		Transverse "عرضيا"	N/5cm	EN-12317, UNI 8202/30	-	Passed
		Thermal Ageing in air (in oven 28 days at 70 ± 2°C) الإهتراء نتيجة للتعرض لدرجات الحرارة المختلفة (28يوماً عند درجة حرارة 70 ± 2 م°)	-	EN1296, UNI 8202 /26	-	Passed
		Ageing Due To Atmospheric Agents الإهتراء نتيجة للعوامل المناخية *(Q.U.V Test)*	-	ASTM G 53 UNI 8202/29	-	Passed
		Fatigue resistance at Joints مقاومة الكلال عند االفواصل	500 cycles	UNI 8202/32	-	Passed
			200 cycles		-	
		Adhesion To Concrete (Torch Applied) قوة الإلتصاق بالأسطح الخرسانية (تسخين بالباشبوري)	N/5cm	Pelage UEATc	-	40
		Adhesion Of Granules التصاق الحبيبات	%	EN-12039	-	-
		Fire Classification - Extemal Fire Performance تصنيف الحريق - أداء الحريق الخارجي	Class	EN 13501-5/ ENV 1187	-	F Roof
		Reaction to fire التعامل مع الحريق	Class	EN 13501-1	-	E

- Tolerances for the above values if not mentioned are according to the UEAtc directives.
- Tolerance for Tear properties are ± 30%.
- Exact value depends on thickness of the product.
- Product Technical specifications may be updated by TechnoBit without prior notice.
- Issue Date of this Techinical Data Sheet is **APRIL / 2025**
  The Information Provided by This Issue Cancels Any Previous Issues.

ISO 9001 OHSAS 18001 ISO 14001