

## THE PRODUCT

**TORCHFLEX** is an elastomeric waterproofing membrane, manufactured in an advanced continuous calendaring process by saturating and coating a composite carrier with a waterproofing compound made of a special grade of bitumen, modified with SBS polymers. While the SBS polymers enhance the thermal, mechanical, and aging properties of the membrane compound, the mechanical characteristics of **TORCHFLEX** are established by the composite carrier made of non-woven Polyester armoured with Glassfiber filaments, which acts as the reinforcement that provides the membrane with the profound mechanical properties of the Polyester and the prominent dimensional stability of Glassfiber mats.

The upper surfaces of **TORCHFLEX** is covered with an anti adhesive finish material, whereas the lower surface is laminated with a thermo-fusible polyethylene film.

**SBS Modified Bitumen Waterproofing Membrane**  
*With Composite Polyester Reinforcement.*

## MAJOR FEATURES

- Substantial dimensional stability provided by the composite reinforcement
- Significant compound elastic, behavior which enables the compound to recover its original dimensions after elongation

## USES

**TORCHFLEX** can be used for roofing and waterproofing applications with high dimensional stability requirements & subjected to normal movements induced by stresses & to normal weathering conditions.

**TORCHFLEX** membranes is particularly recommended for the following applications:

- Flat and sloped roofs protected applications for small areas.
- Protected waterproofing of substrates subject to movements.
- Under-layer in waterproofing or re-roofing works.

## SURFACE FINISH

The lower surface of **TORCHFLEX** is laminated with a polyethylene film. The upper surface is covered with the following surface finish material:

- Polyethylene Film **TORCHFLEX – E/E**

## APPLICATION

**TORCHFLEX** is usually applied by using a propane torch or hot air generator as well as the mechanical fastening. It can also be applied using special adhesives in cold or hot applications. The substrate surface must be clean, dry, smooth, and free from any irregularities. According to the surface conditions, a coat of BituNil primer maybe required prior to the application of the membrane.

**TORCHFLEX** can be applied to the substrate fully bonded, semi bonded or loose laid, and the method of adhesion to the substrate shall be decided according to the waterproofing system design. Side laps should be from 8-10 cm, while end laps should be from 12-15 cm. For more information on application refer to BituNil Application Guide.

## STORAGE & HANDLING

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

## SUPPLY DATA & PALLETISING

Group 100	Group 105	Thickness *	Standard Roll Size	Rolls / Pallet	
				Group 100	Group 105
200	205	2mm	1M x 10M	28	28
300	305	3mm	1M x 10M	28	28
400	405	4mm	1M x 10M	23	23
500	505	5mm	1M x 8M	23	23

*\*Thickness tolerance as per UEAtc. Directives for Group 100 and UEAtc. ± 5% for Group 105*

**Loading Capacity: 20 pallets / 20' Container**

# TORCHFLEX

## SBS Modified Bitumen Waterproofing Membrane

C: Composite Polyester Reinforcement

CP: Low Wt. CS: Medium Wt. CX: High Wt. CZ: Heavy Duty .

PROPERTIES	TEST	UNIT	TEST METHOD	TOLERANCE	TORCHFLEX	
					CP	
Dimensional Properties	Thickness	mm	EN-1849-1	± 5%	4	
	Weight (Mass Per Unit Area)	kg/m <sup>2</sup>	EN-1849-1	± 10%	-	
	Determination Of Width	m	EN-1848-1	± 1%	1	
	Determination Of Length	m	EN-1848-1	± 1%	10	
	Straightness (Ortometry)	mm	EN-1848-1	-	± 10	
Compound Properties	Softening point (R&B)	° C	ASTM D- 36	Min.	100	
	Compound Elongation	%	UNI 8202/8	± 15%	800	
Membrane Properties	Mechanical properties	Tensile Strength - Longitudinal	N/50mm	EN-12311-1	± 20%	500
		Tensile Strength - Transverse	N/50mm	EN-12311-1	± 20%	300
		Elongation At Break - Longitudinal	%	EN-12311-1	±15	30
		Elongation At Break - Transverse	%	EN-12311-1	±15	30
		Tearing Strength - Longitudinal (Nail-Shank)	N	EN-12310-1	± 30%	125
		Tearing Strength - Transverse (Nail-Shank)	N	EN-12310-1	± 30%	150
		Tensile Tear Resistance - Longitudinal	N	ASTM D- 5147 . D 4073	± 30%	400
		Tensile Tear Resistance - Transverse	N	ASTM D- 5147 . D 4073	± 30%	225
		Resistance to Static Loading	Kg	EN 12730 Method A	Min.	10
	Thermal Properties	Dynamic Puncturing (Impact Resistance)	mm	EN 12691 Method B	Min.	550
		Flow Resistance At Elevated Temperature	° C	EN-1110	Min.	90
		Flexibility At Low Temperature <sup>(1)</sup>	° C	EN-1109	-	-5 TO 0
		Dimensional Stability	%	EN-1107-1	Max.	±0.3
		Water Impermeability - Watertightness at Low pressure	60 Kpa	EN-1928 Method A	-	Passed
	Miscellaneous Properties	Water Impermeability - Watertightness at High pressure <sup>(2)</sup>	Kpa	EN-1928 Method B	Min.	100
		Water Absorption	%	ASTM D-5147	Max.	< 1
		Vapour Permeability	μ	EN 1931	-	40000
		Fatigue resistance on cracks	200 cycles	UNI 8202/13	-	Passed
			500 cycles		-	Passed
		Shear Resistance Of joints - Longitudinal	N/50mm	EN-12317-1	± 20%	500
		Shear Resistance Of joints - Transverse	N/50mm	EN-12317-1	± 20%	300
		Thermal Ageing in air (in oven 28 days at 70°C)	-	UNI 8202 /26	-	Passed
		Ageing Due To Atmospheric Agents (U.V Test weathering)	-	ASTM G 53 UNI 8202/29	-	Passed
		Fatigue resistance at Joints	200 cycles	UNI 8202/32	-	Passed
500 cycles			-		Passed	
Fire Classification - External Fire Performance		Class	EN 13501-5/ ENV 1187	-	F Roof	
Reaction to fire		Class	EN 13501-1	-	E	
Adhesion Of Granules		%	EN-12039	Max.	-	
Adhesion To Concrete (Torch Applied)		N/ 50mm	Pelage UEAtc	-	40	
Resistance to root Penetration	-	EN 13948	-	NPD		
Supply Data	weight	kg/m <sup>2</sup>	-	-	3 to 6	
	Thickness	mm	-	-	2 to 5	
	Roll Length	M	-	-	10	
	Roll Width	M	-	-	1	
	Surface finish (E: Polyethylene film S: Sand SL:Slates GR: Granule)					
	Upper Surface Finish	-	-	-	E	
Lower Surface Finish	-	-	-	E		

The declared average values represent the best performance achieved at the present state of our knowledge, BituNil S.A.E reserves the possibility to change, without warning, the technical characteristics in order to make the product more responding to the application requirements. The choice of the type of membrane for the kind of use is at the purchaser's discretion .

Tolerances for the above values if not mentioned are according to the UEAtc directives.

(1) Exact value depends on thickness of the product.

(2) Deviating from the standard method , The assessment is made in 1 Hour test 4mm or 4.5Kg/m<sup>2</sup> products.

Distributor:



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