## BITUFLAME E 4180, 4200 & 4260 SBS MODIFIED, POLYESTER REINFORCED MEMBRANE

### DESCRIPTION

Bituflame E range of SBS modified bitumen waterproofing membranes are manufactured from a rich mixture of bitumen and selected polymers blended together to obtain excellent temperature stability and cold temperature flexibility. Polymerized bitumen then coated onto a dimensionally stable non woven polyester carrier to obtain excellent tensile strength, tear and puncture resistance.

### • USES

Bituflame is used as waterproofing/damproofing membrane for protection of various substrates in wide range of applications i.e. inverted roofs, terraces, balconies, sunken slabs, patios, concrete foundations, basements, pile heads, swimming pools, bridges, tunnels, airport aprons and ramps.

## INSTRUCTION FOR APPLICATION

Application procedure may vary depending upon site conditions. General application guideline is given below.

#### Surface Preparation

The surface where the membrane will be installed shall be clean and dry. All surface imperfections and protrusions are to be removed and repaired. Structurally unsound and friable concrete must be removed and repaired with suitable repair mortar.

#### Priming

Apply Bitukote Bitumen Primer @ 3-5 m<sup>2</sup> per liter to a clean, smooth and dry surface by brush, roller or spray. Refer primer data sheet for more details. Allow primer to dry.

#### Alignment

Unroll and align Bituflame E rolls and re roll correctly before torching. Overlap should be 8 to 10cm and end lap should be 100 to 150mm.

#### Torching

Use gas burner to heat substrate and underside of Bituflame E. Embossing on the lower face of the membrane allows a fast and safe laying. When embossing disappears, after torching, the membrane is ready to stick. Roll forward and press firmly against the substrate to bond. DO NOT over torch as this will expose the reinforcement in the membrane and cause damage.

#### Sealing

Heat both the overlaps and use round tipped trowel to seal the overlap. Excess compound should be smoothened and pressed into seam using hot trowel.

#### Upstand

All angles and abutments should be sealed with extra care to ensure full bondage. Seal the edges well into the grooves and protect with Bitumastic or Polysulphide sealant.

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#### **STANDARDS** •

Bituflame E membranes conform to the requirements of ASTM D 6164 Type I and Type II, UEAtc MOAT 31-1984, and tested in accordance with UEAtc MOAT 27-1983, ASTM D 5147 & CGSB.

#### STORAGE •

Bituflame E should be stored vertically in clean covered area. Rolls should not be stacked on top of each other.

#### **HEALTH & SAFETY** •

All safety measures should be observed during application. Fire extinguishers should be available at site. Care should be taken with gas and torch should not be rested on finished surface or on any materials that can be scorched by flame or hot torch. Protective tools, such as gloves and goggles should be worn by all workers during application.

## BITUFLAME MEMBRANES E4180, E4200 & E4260

PROPERTIES	VALUES			standard	
	E4180	E4200	E4260		
Roll Size – m	10 X 1	10 X 1	10 x 1		
Thickness – mm	4.0	4.0	4.0		
Unit weight – Kg/m²	4.0-4.20	4.0-4.20	4.0-4.20	UEAto	-
Carrier (polyester) weight $g/m^2$	180	200	260	UEAto	-
Coating Asphalt	SBS modified asphalt				
Softening Point (R&B) °C	115			ASTM D 36	
Penetration at 25°C, 0.1mm	25 – 40			ASTM D 5	
Tensile Strength (L/T), N/5cm	800/600	850/650	1100/800	UEAto	-
Elongation at break (L.T), %	40/50	40/50	40/50	UEAto	
Load strain product (L/T) N	32,000/	34,000/	49,500/	CGSB-37	GP
	30,000	32,000	40,000	56M	
Lap Joint Strength (L/T), N/5cm	>800/600	>850/650	>1100/800	UEAto	
Tear Resistance (L/T), N	180/200	200/220	220/240	UEAto	-
Puncture resistance	Static : L <sub>4</sub>			UEAtc	
	Dynamic : L <sub>3</sub>				
Resistance leakage at joints	Pass			UEAto	-
Resistance to water pressure	No Leakage			DIN 521	23
Water absorption, % (BSP)	< 0.2			ASTM D 5	147
Heat resistance at 100°C	No flow			UEAto	-
Resistance to aging after 2000 hrs	No deterioration		ASTM D 4799		
(Weather-O-Meter)				M311VI D 4799	
Cold Temperature Flexibility	< - 15			UEAto	

#### TECHNICAL DATA

Tolerance according standards 5 – 20%



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