


TECHNICAL SPECIFICATIONS

TECHNICAL CHARACTERISTICS OF <i>POLY FLEX™</i> EPDM MEMBRANE GRADE: TermiGARD™ (PATENTED)		SPECIFICATION : TC : SAB-2001/04-03 DT.01-04-03 SAB-2269/05-03 DT.20-05-03 RAL/02-03/6380203 DT.03-03-03		
PHYSICAL PROPERTY	ASTM/BS TEST METHOD	REQUIREMENT OF		<i>POLY FLEX™</i> RESULT
		RMA/ROOF COUNCIL-USA	ASTM STANDARD	
COLOUR	.....	Black	.....	Black
THICKNESS	-D 412/BS 903	1.016	1.016	1.1 TO 1.15
TENSILE STRENGTH (MPa)	-D412Die C/BS903 Part A2	9-Min	9-Min	9.50
ELONGATION AT BREAK (%)	D412/BS903 Part A2	300-Min	300-Min	320
ANGULAR TEAR kN/m	D 624 die C / BS903 Part A3	26.27-Min	26.27-Min	29
BRITTLENESS POINT max.°F (°C)	D 2137	-49 (- 45)	-49 (- 45)	NO CRACK
Linear Dimensional Change at 116°C for 16 hrs	D 1204./.....	±2%	±1%	+0.3%
Ozone Resistance /166 hrs./ 50 PPHM/40°C 50% Extn.	D1149/BS903 Part A43	NO CRACK	NO CRACK	NO CRACK
HEAT AGEING (670 h@116°C)	D-573/BS903 Part A10			
Tensile		6.0Mpa-Min	8.30Mpa-Min	9.02 Mpa
Angular Tear (kN/m)		21.9-Min	21.9-Min	22
Water Absorption at 70°C for 166 hrs.	D-471/.....	+8% - 2%	+8% - 2%	+0.3%
Factory Seam Strength (Seam Joint 50mm)	D-816/.....	Sheet failure or 50 Lb/inch minimum	.....	Sheet failure at 24Kg./inch.
TERMISIDE	.....	1% BY WT. AS AS PER IS-CODE	.....	1.14 % BY WEIGHT
Hardness	.....	.....	.....	60 ± 5°A
Density gm/cm²	...../Bs903 Part A1	.....	.....	1.2
SIZE OF ROLL	.....	.....	.....	L=25 -- 30 MTR W= 1 TO 1.2 MTR

REF : D-4637/D-6134 & Tolerance as per UEAtc : MOAT No: 46-1988


• **Observe all Mandatoy Safety Precautions for Handling a Membrane with Termitiside.**

The above values are taken from specimens made under reproducible laboratory conditions.

However they may differ some what on actual production / supply due to vulcanization conditions at factory.

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TECHNICAL SPECIFICATIONS

TECHNICAL CHARACTERISTICS OF <i>POLY FLEX™</i> BUTYL MEMBRANE/ POND LINER GRADE : LF - 6600		SPECIFICATION : TC : SAB-2443/08-03 DT.02-08-03 SAB-24433/08-03 DT.21-08-03 IRMRA :		
PHYSICAL PROPERTY	ASTM/BS TEST METHOD	REQUIREMENT OF ASTM STANDARD	<i>POLY FLEX™</i> RESULT	
COLOUR	.....	Black	Black	
THICKNESS	-D 412/BS 903	1.37	1.40	
TENSILE STRENGTH (MPa)	-D412Die C/BS903 Part A2	8.3-Min	9.0	
ELONGATION AT BREAK (%)	D412/BS903 Part A2	300-Min	400	
ANGULAR TEAR KN/m	D 624 die C / BS903 Part A3	26.27-Min	38	
BRITTLENESS POINT max.°F (°C)	D 2137	-40 (- 40)	NO CRACK	
Linear Dimensional Change at 116°C for 16 hrs	D 1204./.....	±1%	+0.20%	
Ozone Resistance / 166 hrs. / 50 PPHM / 40°C 50% Extension	D1149/BS903 Part A43	NO CRACK	NO CRACK	
HEAT AGEING (670 h @ 116°C)	D-573/BS903 Part A10	.....	.....
Tensile	.....	6.20Mpa-Min	6.86 Mpa	
Elongation at Break	.....	210% - Min	250%	
Angular Tear (kN/m)	.....	.....	27	
Water Absorption at 70°C for 166 hrs. (ASTM-D-471)	D-471/.....	+8% - 2%	+0.20%	
Factory Seam Strength (Seam Joint 50mm)	D-816/.....	.....	Sheet failure at 24Kg./inch.	
Hardness	70 ± 5°A	
Density gm/cm²	Bs 903 Part A1	1.3	
SIZE OF ROLL	L=25 -- 30 MTR W=1 TO 1.2 MTR	


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TECHNICAL SPECIFICATIONS

TECHNICAL CHARACTERISTICS OF <i>POLY FLEX™</i> HYPALON MEMBRANE/ POND LINER GRADE : LD 4000.		SPECIFICATION : TC : SAB-350/9-99 (B) DT.10-9-99 IRMRA :		
PHYSICAL PROPERTY	ASTM/BS TEST METHOD	REQUIREMENT OF		<i>POLY FLEX™</i> RESULT
		RMA/ROOF COUNCIL-USA	ASTM STANDARD	
COLOUR	.....	Black	.....	Natural White
THICKNESS	-D 412/BS 903	1.016	1.016	1.1 TO 1.15
TENSILE STRENGTH (MPa)	-D412Die C/BS903 Part A2	9-Min	9-Min	11
ELONGATION AT BREAK (%)	D412/BS903 Part A2	300-Min	300-Min	400
ANGULAR TEAR KN/m	D 624 die C / BS903 Part A3	26.27-Min	26.27-Min	33
BRITTLENESS POINT max.°F (°C)	D 2137	-49 (- 45)	-49 (- 45)	NO CRACK
Linear Dimensional Change at 116°C for 16 hrs	D 1204./.....	±2%	±1%	+0.3%
Ozone Resistance /166 hrs./ 50 PPHM/40°C 50% Extn.	D1149/BS903 Part A43	NO CRACK	NO CRACK	NO CRACK
HEAT AGEING (670 h@116°C)	D-573/BS903 Part A10			
Tensile		6.0Mpa-Min	8.30Mpa-Min	13 Mpa
Elongation at Break		200%_Min	200%-Min	295%
Angular Tear (kN/m)		21.9-Min	21.9-Min	23
Water Absorption at 70°C for 166 hrs.	D-471/.....	+8% - 2%	+8% - 2%	+1.12%
Factory Seam Strength (Seam Joint 50mm)	D-816/.....	Sheet failure or 50 Lb/inch minimum	.....	Sheet failure at 22Kg./inch.
Flex Cracking	BS 903 Part A 10	.....	.....	200000 cycles- NO cracks
Hardness	65 ± 5°A
Density gm/cm²/BS903 Part A1	1.43
SIZE OF ROLL	L=25 -- 30 MTR W=1 TO 1.2 MTR


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TECHNICAL SPECIFICATIONS

TECHNICAL CHARACTERISTICS OF <i>POLY FLEX™</i> EPDM MEMBRANE/ GRADE : "SV"		SPECIFICATION : TC : SAB-2760/01-05 DT.17-1-05 IRMRA		
PHYSICAL PROPERTY	ASTM/BS TEST METHOD	REQUIREMENT OF		<i>POLY FLEX™</i> RESULT
		RMA/ROOF COUNCIL-USA	ASTM STANDARD	
COLOUR	.....	Black	.....	Natural White
THICKNESS	-D 412/BS 903	1.016	1.016	1.1 TO 1.15
TENSILE STRENGTH (MPa)	-D412Die C/BS903 Part A2	9-Min	9-Min	9.8
ELONGATION AT BREAK (%)	D412/BS903 Part A2	300-Min	300-Min	350
ANGULAR TEAR KN/m	D 624 die C / BS903 Part A3	26.27-Min	26.27-Min	29
BRITTLENESS POINT max.°F (°C)	D 2137	-49 (- 45)	-49 (- 45)	NO CRACK
Linear Dimensional Change at 116°C for 16 hrs	D 1204./.....	±2%	±1%	+0.3%
Ozone Resistance /166 hrs./ 50 PPHM/40°C 50% Extn.	D1149/BS903 Part A43	NO CRACK	NO CRACK	NO CRACK
HEAT AGEING (670 h@116°C)	D-573/BS903 Part A10			
Tensile		6.0Mpa-Min	8.30Mpa-Min	9.5 Mpa
Elongation at Break		200%_Min	200%-Min	250%
Angular Tear (kN/m)		21.9-Min	21.9-Min	22
Water Absorption at 70°C for 166 hrs.	D-471/.....	+8% - 2%	+8% - 2%	+1.8%
Hardness - After Complete Cure	.....	.....	.....	60 ± 5°A
Density gm/cm²	...../BS903 Part A1	.....	.....	1.2
SIZE OF ROLL	.....	.....	.....	L=25 -- 30 MTR W=1 TO 1.2 MTR
WITH PLASTIC LINER NOTE : USED MAINLY FOR COMPLEX AREA.				


REF : D-4637/D-6134 & Tolerance as per UEAtc : MOAT No: 46-1988

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TECHNICAL SPECIFICATIONS

TECHNICAL CHARACTERISTICS OF <i>POLY FLEX™</i> EPDM MEMBRANE GRADE : "G - FR"-FIRE RESISTANT		SPECIFICATION : REF TC : 3560/10-05 DT:29.10.05 DUTREL REPORT-CERISI NO:692/2005 DT:6/12/05		
PHYSICAL PROPERTY	ASTM/BS TEST METHOD	REQUIREMENT OF		<i>POLY FLEX™</i> RESULT
		RMA/ROOF COUNCIL-USA	ASTM STANDARD	
COLOUR	.....	Black	.....	Natural White
THICKNESS	-D 412/BS 903	1.016	1.016	1.1 TO 1.15
TENSILE STRENGTH (MPa)	-D412Die C/BS903 Part A2	9-Min	9-Min	9.8
ELONGATION AT BREAK (%)	D412/BS903 Part A2	300-Min	300-Min	570
ANGULAR TEAR KN/m	D 624 die C / BS903 Part A3	26.27-Min	26.27-Min	37
BRITTLENESS POINT max.°F (°C)	D 2137	-49 (- 45)	-49 (- 45)	NO CRACK
Linear Dimensional Change at 116°C for 16 hrs	D 1204./.....	±2%	±1%	+0.3%
Ozone Resistance /166 hrs./ 50 PPHM/40°C 50% Extn.	D1149/BS903 Part A43	NO CRACK	NO CRACK	NO CRACK
HEAT AGEING (670 h@116°C)	D-573/BS903 Part A10			
Tensile		6.0Mpa-Min	8.30Mpa-Min	11.2 Mpa
Elongation at Break		200%_Min	200%-Min	295%
Angular Tear (kN/m)		21.9-Min	21.9-Min	23
Water Absorption at 70°C for 166 hrs.	D-471/.....	+8% - 2%	+8% - 2%	+1.8%
Factory Seam Strength (Seam Joint 50mm)	D-816/.....	Sheet failure or 50 Lb/inch minimum	.....	Sheet failure at 24Kg./inch.
Hardness - After Complete Cure	.....	.....	.....	60 ± 5°A
Density gm/cm²	...../BS903 Part A1	.....	.....	1.25
SIZE OF ROLL	.....	.....	.....	L=25 -- 30 MTR W=1 TO 1.2 MTR

REF : D-4637/D-6134 & Tolerance as per UEAtc : MOAT No: 46-1988 FIRE TEST CONFORMS TO : BS 476 Part 3 - 1975
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PRIMER SPECIFICATION FOR MEMBRANE

P - I

- DESCRIPTION** : Primer (Grey) used to apply on substrate like M.S. Concrete, Wood, Asbestos etc. To be used in conjunction with **Cover - 3174**.
Not to be Applied on Membrane in any case.
- APPLICATION METHOD** : Manual by Brush.
- COVERAGE** : 1 LTR = 6 M² (Membrane Area/Applied Area) - One Coat
- STANDARD PACKING** : 4 Ltr. Tin / 20 Ltr. Tin.
- NOTE** :
- Above Indicated Consumption is indicative on the basis of our actual use & will vary from Job to Job, Application to Application.
 - Material is **FLAMMABLE**.
 - Apply ON & USE During "DRY" Condition
 - STIR WELL BEFORE USE
 - DURING APPLICATION/ USE, DEW POINT SHOULD NOT BE LESS THAN 3.

ADHESIVE SPECIFICATION FOR MEMBRANE / POND LINER

COVER - C - 3174

- DESCRIPTION** : ADHESIVE (LIGHT BLUE) to be used in conjunction with primer P-1 for MEMBRANE to Substrate Adhesion.
For MEMBRANE to MEMBRANE use cover - 3174 mix.
- APPLICATION METHOD** : Manual by brush.
- COVERAGE** : Total Four Coats : With Substrate to MEMBRANE or with MEMBRANE to MEMBRANE joints (2 Coats on Substrate + 2 coats on MEMBRANE).
1 LTR Mix = 0.9 M² (MEMBRANE / APPLIED AREA)
1 LTR COVER 3174 "Mix" = 1 LTR-C-3174+60 ml A-I.
- STANDARD PACKING** : 4 Ltr. Tin / 20 Ltr. Tin.
- NOTE** :
- Above Indicated Consumption is indicative on the basis of our actual use & will vary from Job to Job, Application to Application.
 - Activator : "A-I" to be added just before use. Life after mixing with "A-I" may be 30 min. (Depending upto ambient temperature.)
 - Cover C-3174 is HYGROSCOPIC & FLAMABLE. Necessary precautions to be taken during Transport / Storage / use.
 - STIR WELL BEFORE USE.
 - Temperature during application 15-20°C (Min)
 - Suggested storage Temperature 10°C with shelf life 6 months
 - Apply on & use during "DRY" condition.
 - During application / use, Dew point should not be less than 3.

ACTIVATOR SPECIFICATION FOR MEMBRANE / POND LINER

A - I

- DESCRIPTION** : *Activator to be used in conjunction with cover - C - 3174.*
- Usage / Dosage** : *To 100 ml of Cover - C - 3174 add 6 ml of A-I.*
- STANDARD PACKING** : *750 ml. Tin.*
- NOTE** :
- *Activator "A-I" is hygroscopic & should be kept away from high Humidity, Sunlight.*
 - *Mix with C - 3174 just before use.*
 - *After use, close the lid immediately due to very short life.*
 - *Activator "A-I" is Isocyanide based & is flammable. Necessary Health / Safety Precautions to be taken.*
 - *Suggested storage Temperature 10°C (Original Sealed) with shelf life 12 months.*
 - *Once open for use, cover with thin polythene sheet & then close with original lid.*
 - *Activator "A-I" to be added to Cover 3174 just before use. Life after mixing with cover C-3174 may be 30 min depending upon Ambient Temperature.*

SPECIFICATION OF *POLY FLEX™* BUTYL TAPE

DESCRIPTION

: *POLY FLEX™* - Black-Butyl based Adhesive tape for use in MEMBRANE / LINER INSTALLATION. This can be used for MEMBRANE to MEMBRANE adhesion as well as MEMBRANE to Substrate adhesion.

THICKNESS

: Standard Recommended - 1.5 mm.
other on request - 2 mm, 3 mm etc.

WIDTH X LENGTH

: Width - 40 mm (STD)
Length - 10 MTR.
Other Width on Request - 50 mm, 80 mm,
100 mm, 150 mm.

STANDARD PACKING

: Roll of 10 MTR with two side silicon treated Non-stick paper

NOTE

: Surface to be applied with Butyl tape should be free from dust/rust/dirt/oil etc.

INSTALLATION PROCEDURE GUIDELINES FOR *POLY FLEX*™ MEMBRANE

- Remove surface irregularities if any and see that there are no sharp edges.
- Clean the substrate (RCC, Coba, Wood, MS etc) and make it dirt, oil/grease free.
- Ensure that the substrate is moisture free.

A) FOR SPOT BONDING

Apply one coat of Primer P-I on substrate with 75 mm width throughout one length of terrace or one ROLL of membrane. Also apply one coat of Primer P-I (75 mm width) on the other end of membrane width along the ROLL length. Allow the Primer to dry out for about half an hour. (No Primer to be applied on membrane. Primer to be applied on substrates only).

Now take a fresh and clean tin and mix cover C- 3174 and Activator A-I in the proportion of 1000 ML : 60 ML in a tin not more than a litre and half in capacity. Use this mixture within half an hour of mixing.

Now apply one coat of adhesive on Primered surface on the terrace & also on the corresponding position of the membrane. Apply one more coat of adhesive on both the membrane and substrate. - Allow Solvent to evaporate & tack should remain.

Gently place membrane (with adhesive coated surface facing downwards) on the substrate. Apply gentle hand pressure /use Roller from one end of membrane to the other ensuring no air is entrapped in between.

After this apply adhesive 2 coats on top of first membrane of about 50 mm width from the edge and 50 mm width on bottom of second membrane and gently place the second membrane on the first membrane for joining first membrane to the second with 50 mm overlap. For membrane to membrane joint only adhesive is to be used (not the primer.)

B) FULL BONDING SYSTEM

Repeat the above process except that instead of 75 mm width at edges of membrane, apply primer to 100% of substrate surface and allow it to dry. Then apply 2 coats on 100% area of substrate and 100% area of membrane. Then place membrane's adhesive coated surface on substrate and apply gentle, even pressure for adhering membrane to substrate.

Repeat the process of overlap by 50 mm and place second roll of membrane on the first membrane and press gently for adhesion of membrane to membrane width wise.

PRECAUTIONS TO BE TAKEN

- Handle Activator "A1" with care. It is ISO-CYANIDE based and should not be touched with bare hands. Also keep it away from sunlight.
- "C-3174" and "A1" to be mixed just before applying on membrane and the surface. Use this mixture within half an hour of mixing.
- Primer, Cover and Activator containers to be covered with lids tightly always.
- All the above liquids supplied are flammable, necessary precautions should be taken during installation / storage.
- Primer and Adhesive - STIR WELL BEFORE USE.
- INSTALLATION/ APPLICATION TEMPERATURE SHOULD BE MINIMUM 20°C (Ambient Temp.)

N.B.

- Substrate should be absolutely dry at the time of installation.
- Installation **not to be** carried out in humid / moist atmosphere.
- Do not install membrane on Tar Felt / Coal Tar. Remove Tar Felt / Coal Tar completely before installation.
- In case of doubt consult our Technical Department before use.

WARRANTY

POLY FLEX™ Membrane supplied by us is warranted to withstand severe weather conditions, like heavy rains, temperature variations from -20°C to +80°C, ultra violet rays from sun and atmospheric Ozone. It provide protection for at least 10 years (for EPDM / HYPALON based) from the date of supply when properly laid applied as per instructions. Protection period may vary due to abnormal conditions of use. Any defective material will be repaired or made good by us and our decision on the same will be final.

We will however, not be responsible for any act of negligence / intensional abuse by any person, accident or damage caused by falling objects and also to the natural disasters, wars, civil disobedience etc.



POLY RUBBER PRODUCTS

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