



POLYMAT® Pota -R



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EN-DIN 13967 & BS-EN 6920: Part 1, 2, 3

Polymeric membrane of PVC compound

Certified for inner linings of Water-tanks provided and specified for the containing of potable water acc. to BS-EN 6929, Part 1,2,3 (**suitability of non-metallic products for use in contact with water intended for human consumption**).

Polymeric PVC-P membrane with a PVC-coated Polyester scrim reinforced.

Complies with European Standards **EN-DIN 13967** (Basements) & **BS-EN 6920: Part 1, 2, 3 (potable water suitability)**



POLYMAT Pota -R Description

POLYMAT Pota -R is a polymeric membrane made from a long-term proven PVC-P compound in a most modern Co-extrusion process. It is reinforced by a 110 g/sqm Polyester scrim for providing high tear strength and ensuring dimensional stability.

Thickness (mm)	1.20	1.50	2.00
Width (m)	2.10	2.10	2.10
Length (m)	25	20	20
Colour (*)	Top: RAL 9002 grey white, Bottom: black		

(*) Other RAL Standard colors on demand



POLYMAT Pota -R Applications

- Reinforced PVC-P membrane for Water tank linings and other potable water containments
- For ease of detail works (flashings, joints, corners, etc.) use homogenous **POLYMAT Pota -HM**



POLYMAT Pota -R Advantages

- High mechanical & thermal resistance
- High resistance to puncturing
- Resistant to root penetration
- High resistance to hot-cold temperature cycles
- High aging resistance, well proven formula developed for 40 years
- Fast application: Roll lengths of 20-25 m1 and 2.10 – 2.15 m1 widths, up to 60 m1 on demand
- Specific thicknesses: on demand
- Full range of complimentary accessories available
- Customized sheet sizes of up to 1000 m² available for any project



POLYMAT Pota -R Installation

POLYMAT Pota -R membranes are seam welded with hot air automatic and hand-held machines by trained applicators. For detail solutions and the best application methods for all designs, consult the application technicians of **BITUMAT** or **BITUMAT** distributors for field assistance.

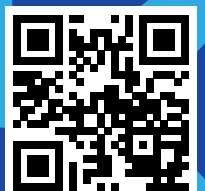
BITUMAT provides system membranes for all waterproofing requirements, to guarantee the best and most proven solution for all constructions, buildings and civil engineering projects.

The following ranges of PVC-P system membranes (all range as customized sheets as well) are available:

- **POLYMAT Roof UV-R + HM:** High UV resistant & fire-retardant membrane for exposed roofing (reflective)
- **POLYMAT Roof -R + HM:** System membrane for inverted & ballasted roofs, roof gardens
- **POLYMAT Base HM + -R:** WP membrane for Civil engineering & Building structures below ground, high performance Geo-membrane applications, homogenous and reinforced
- **POLYMAT TN (Tunnel):** Membrane for Tunnels and covered vaults (with yellow Signal layer)
- **POLYMAT Pool:** Classic Swimming Pool membranes and Pond Liners in various RAL colors



Bitumat Co. Ltd.
P.O. Box 7487
65th Street, Second Industrial City
Dammam-31462
Tel: +966 13 8121210





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Specification & Properties

EN-DIN 13967

Mechanical - Technical Properties		(*) Tolerances as per EN-DIN &UEAtc directive
Thickness / Mass per unit area (*)	EN 1849-2 EN 1849-2 EN 1849-2	1.20 (-5/+10%) mm / 1.58 kg/m ² (-5/+10%) 1.50 (-5/+10%) mm / 1.98 kg/m ² (-5/+10%) 2.00 (-5/+10%) mm / 2.66kg/m ² (-5/+10%)
Straightness	EN 1848 – 2	≤ 75 mm / 10 m
Visible defects	EN 1850 – 2	Pass
Tensile strength	ISO R 527 – 1/3/5 ISO R 527 – 1/3/5	Machine: ≥ 17 (±2.0) N / mm ² Cross: ≥ 17 (±2.0) N / mm ²
Resistance to foldability at low temperature	≤ -25°C	EN 495-5
Peel resistance of joints	≥ 100 N/50mm	EN 12316-2
Elongation	ISO R 527 – 1/3/5 ISO R 527 – 1/3/5	Machine: ≥300 % Cross: ≥ 300 %
Elastic Modulus E 1-2 (N/mm ²) MD (N/mm ²) CD (N/mm ²)	ISO 527-1/3	≤ 20 ≤ 20
Behaviour under Hydrostatic Pressure 5 bar/72 hr (10 bar/24 hr)	EN 1928 (DIN 16726-5.11)	No Leaking
Tear strength	ISO 34 Method B; V=50 mm/min ISO 34 Method B; V=50 mm/min	Machine: ≥ 42 kN/m Cross: ≥ 42 kN/m
Resistance to tear (nail shank)	EN 12310 – 1	≥ 400 N (1.20 + 1.50 mm) ≥ 500 N (1.80 + 2.00 + 2.20 mm)
Resistance to impact : 1.50 + 2.00 mm Resistance to impact : 2.00 + 2.20 mm	EN 12691 : 2005 EN 12691 : 2005	≥ 450 mm ≥ 750 mm
Joint strength: 1.50 + 2.00 mm Joint strength: 1.50 + 2.00 mm	EN 12317 – 2 EN 12317 – 2	≥ 880 N / 50mm ≥ 1100 N / 50mm
Burst strength	EN 14151 D=1.0 m	≥50 %
Thermal expansion	EN 14151 D=1.0 m	190x10 ⁻⁶ (±50x10 ⁻⁶) 1/K
Low temperature behaviour (**)	ASTM D 696-91	≤ - 20°C
Weathering	EN 12224, 350 MJ/m ² , ISO 527-3/5/100	Remaining tensile strength and elongation: ≥ 65 %
Chemical resistance	EN 14414: 2004-08; ISO 527-3/5 EN 14414: 2004-08; ISO 527-3/5 EN 14414: 2004-08; ISO 527-3/5	A (hydrolyses under acid conditions): Change in elongation: ≤ 10 % B (hydrolyses under alkaline conditions): Change in elongation: ≤ 10 % D (artificial disposal water): Change in elongation: ≤ 10 %
Water tightness to liquid water	EN 1928 B (24h / 60kPa)	Pass
Durability of water tightness against ageing	EN1296(12 weeks) EN 1928 B (24h / 60kPa)	Pass
Durability of water tightness against chemicals	EN 1847 (28d/+23°C) EN 1928 B (24h / 60kPa)	Pass
Accelerated ageing in an alkaline environment, tensile strength	(24 weeks / +90°C) EN 12311 – 2	Pass
Water vapour transmission	EN 1931 (+ 23°C / 75% r. h)	18 000 μ (+ / - 5000)
Resistance to root penetration	EN 14416:2002	Pass
Reaction to fire	EN ISO 11925-2	Class E



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BS-EN 6920: Part 1, 2, 3 + Certifications to EU/EC Directives and Regulations

Chemical - Technical Properties

Potable Water and Tap water Verification of suitability and compliance with BS-EN 6920	BS-EN 6920, Part 1, 2 and 3 2000, CI 2.2 & 2.3	No discernible odour and flavours, appearance clear No. of extractions: 7 @ 60 degr. C Parameter: Al, Fe, Mn, Cr, Cd, Ni, Pb, Ag, As, Hg Se, Sb, Ha
Resinous and polymeric coatings for food containers (and closures)	FDA CFR title 21, 175.300, 177.1210	
European Commission Regulation compliance certificate	Regulation 10/2011 (Jan. 14) Art. 5, 1935/2004 materials and articles to come in contact with food & Regulation 2015/174, 150205-amendment to Regulation 10/2011 repeal of directive 2002/72/EC	
Components of membranes: inclusion in certifications and listings (ESP)	Substance allowed to manufacturing plastic material suitable for food contact and packaging acc. to ESP RD 866/2008 and amendments.	
Certification for PVC-P compound: free of restricted substances	Dir 2002/95/CE-ROHS, amendment Dir 2008/35/EC (heavy metals, lead, mercury, hexavalent chromium, PBB and PBDE)	
Substances not contained in the product acc. to the list of substance of concern	Certification: the product does not contain DEHP (DOP) plasticizer (CAS No. 117-81-7)	



Storing

POLYMAT membranes are recommended to be stored out of direct sunlight and on pallets.



Quality Assurance

The products originating from the **BITUMAT COMPANY LIMITED** facility are manufactured under a management system independently certified to conform to the requirements of ISO 9001:2015, specified to EN 13956.



Safety

BITUMAT products contain no asbestos, tar or any other dangerous substances. When adhering to **BITUMAT** installations manuals, **POLYMAT** membranes do not damage the environment are not classified as hazardous goods for all transports.



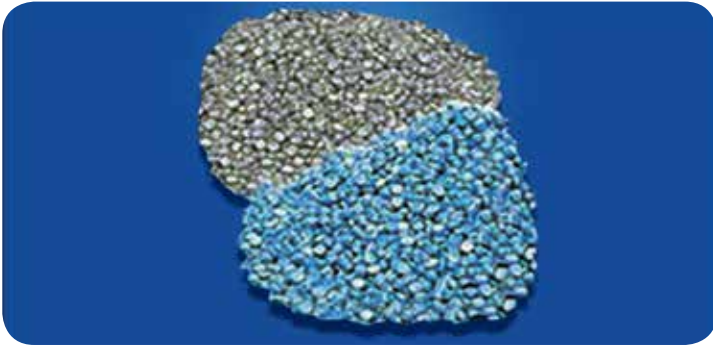
Note

Advisory service, where provided, does not constitute supervisory responsibility.
For additional information contact the **BITUMAT COMPANY LIMITED** Sales & Application Department.



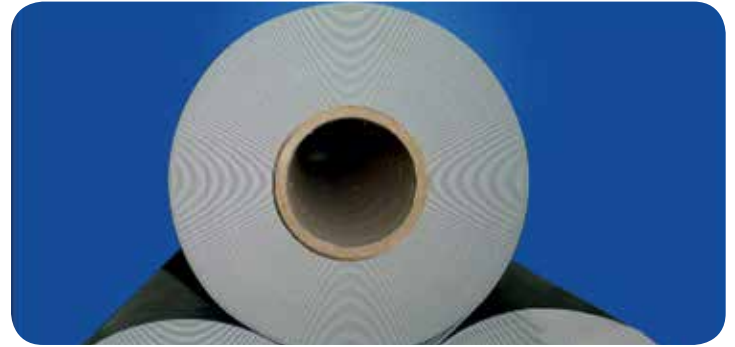


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Roofing (Low slope - Flat roofs) MS1

- MS 1.1. Exposed roofs
- MS 1.2. Inverted roofs
- MS 1.3. Reflective roofs
- MS 1.4. Solar roofs
- MS 1.5. Vegetated roofs (Green roofs)
- MS 1.6. Roof refurbishments



Waterproofing (Subsoil, Covered) MS2

- MS 2.1. Basements, Civil Engineering Structures below ground, Motorway Underpasses, etc.
- MS 2.2. Tunnels and Vaults
- MS 2.3. Water-tanks



Geo-Membranes (Water-world & Landscaping) MS3

- MS 3.1. Containment & irrigation ponds
- MS 3.2. Artificial Lakes & Lagoons; Aquaculture ponds
- MS 3.3. Dam protection liners
- MS 3.4. Canals, Waterways
- MS 3.5. Specialty Containment Applications
- MS 3.6. Oil field & Mining leach reserve pads & storage pits
- MS 3.7. Landfills & Ground water protective linings
- MS 3.8. Golf course ponds
- MS 3.9. Swimming pools



Special applications (New developments, R & D) MS4

- MS 4.1. Solar PV integrated Roofs
- MS 4.2. Nanotechnologies for enhancing polymer properties (R&D)
- MS 4.3. Geo-engineering developments
- MS 4.4. Compounded membranes



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