



# EPDM GEOMEMBRANES



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## EPDM

Geomembrane whose elasticity has been increased is a rubber drastic waterproofing material which is manufactured from ethylene propen diene monomer. It has 0,8 -1 – 1,2 – 1,5 –1,6 - 2,0 – 2,5 - 3 mm thicknesses and 2,05 meter width.

### FEATURES :

- APPLICABLE AS ONE LAYER
- APPLICATIONS CAN BE MADE BY THE HELP OF HOT WEDGE WELDERS AND HOT AIR BLOWERS
- RESISTANT TO UV BEAM
- RESISTANT TO PLANT ROOTS.
- NONCORROSIVE MATERIAL; RESISTANT TO AGING.
- HIGH PERFORMANCE IN ELONGATION AND ELASTICITY.
- HIGHLY RESISTANT TO SEVERAL CHEMICAL MATERIALS.
- NOT HAZARDOUS AGAINST ENVIRONMENT. CAN BE RECYCLED. SO THAT IT IS GREEN
- LONG-LIVED.
- RESISTANT TO COLD WEATHER CONDITIONS. - 40°C and + 140°C.
- INSTANTANEOUS TEMPERATURE CHANGES AFFECT EPDM GEOMEMBRANE AT a MINIMUM RATE.

### TYPICAL APPLICATIONS :

It can be used in all projects where impermeability coat is required.

- TERRACES-ROOFS
- LANDSCAPING AREAS
- ARTIFICIAL PONDS, FIRE POOLS AND OTHER POOLS
- BUILDING FOUNDATION WATERPROOFING SYSTEMS
- WATER TANKS
- IRRIGATION CANALS
- TUNNELS
- DAMS
- CUT-AND-COVER TUNNELS



# TYPES

## A / EPDM :

- It is manufactured with a thicknesses between 0,50mm – 3,00mm.
- It is used in building foundations, terraces, ponds, canals, water reservoirs and pools.
- When it is demanded, it is manufactured as UV beam resistant.
- Width of the product is 2,05 meter; length is optional.



## A / EPDM – KL :

- It is a kind of EPDM geomembrane which is manufactured by laminating geotextile fabric onto the bottom of it.
- It is especially used for saving the extra time which is spent for spreading geotextile in construction site.
- It is also used in every kind of area where unlaminated geomembrane is used.
- It is manufactured by laminating geotextile fabric with various weight in grams.
- When it is demanded, it is manufactured as UV beam resistant.
- Width of the product is 2,05 meter; length is optional.





## STORAGE

Rolls should be stowed horizontally without exceeding 6 sequences by paying attention to lower the weight in each sequence.

It should be kept in its original pack and protected against sharp objects.



## TESTING THE REGIONS WHERE APPLICATION HAS BEEN MADE BY WELDING MACHINE:

Sewing(welding) test is applied to the randomly selected regions in the application site. Welding robot that is capable of double sewing permits test space in the form of channels in order to let us perform the sewing region tests.

By the help of special equipments, between 1.5 bar and 2 bar air pressure is applied to that channel. Standby time is 2-5 minutes. And pressure equipment is checked. (If loss does not exceed %20, it means that welding has been done safely)

If there exists any problem, that region is detected and repaired. After that, test is performed again. Finally, the region where tests have been applied, are welded carefully. Thus, testing procedure has been completed, successfully.



## WELDING AND FIXING METHODS

EPDM geomembrane is in flat sheet form, packaged in rolls and based on spreading. Geomembranes are welded each other by allowing 6-10 cm overlapping portions in the application site using the machines whose pictures take place hereunder. Those are kind of welding machines which blow hot air or which are heated by hot air. Except the smooth areas (corners and small edges where machines can not work safely), hot air guns are used. When it is demanded, optional sizes can be manufactured. For the ending points, it is fixed by aluminium fastenning bars or by earthing inside the concrete.



# TECHNICAL RESULTS

## TEST RESULTS ACCORDING TO THE TS EN 13361-13362-13491-13492-13493 NORMS

STANDART NO	FEATURE	REQUIREMENT	RESULT
TS EN 1850-2	VISIBLE DEFECTS	THERE SHOULD NOT EXIST ANY VISIBLE DEFECTS	NO VISIBLE DEFECTS
TS EN 1848-2	LENGTH	SHOULD BE ETWEEN REGISTERED TOLERANCES	REGISTERED VALUE 25 m FULFILLED
TS EN 1848-2	WIDTH	SHOULD BE ETWEEN REGISTERED TOLERANCES	REGISTERED 2,1 m
TS EN 1849-2	THICKNEESS	SHOULD BE ETWEEN REGISTERED TOLERANCES	REGISTERED VALUE 1-,1,2-1,5-2-3 mm
TS EN 1849-2	MASS PER UNIT AREA	SHOULD NOT BE IN THE INTERVAL EXCLUDING THE REGISTERED VALUE TOGETHER WITH THE MANUFACTURER TOLERANCE	REGISTERED VALUE FULFILLED
EN 14150	WATER-TIGHTNESS	SHOULD E WATER –TIGHT AFTER THE TEST	TIGHT AT
EN ISO 527	TENSILE STRENGTH	MANUFACTURER'S REGISTERED VALUE	10,3 N/mm <sup>2</sup> - %450
EN ISO 12236	RESISTANCE TO STATIC PUNCHING	MANUFACTURER'S REGISTERED VALUE	1,1 Kn
EN 12224	RESISTANCE TO WEATHER CONDITIONS	MANUFACTURER'S REGISTERED VALUE	CHANGE IN TENSILE:%-7 CHANGE IN ELONGATION:% -8
EN 14575	RESISTANCE TO OXIDATION	MANUFACTURER'S REGISTERED VALUE	CHANGE IN ELONGATION%-1,-2 TENSILE
EN 495-5	Behaviour at low Temperature	Elasticity is required	Elastic

# TEKNİK TABLO / TECHNICAL CHARTS

## BİRİM AĞIRLIK TABLOSU (A/EPDM - KL) UNIT MASS CHART

KALINLIK THICKNESS (mm)	GENİŞLİK WIDTH (m)	UZUNLUK LENGTH (m)	AĞIRLIK MASS (kg/m <sup>2</sup> )
0,80 mm (100 gr/ m <sup>2</sup> )	2,05 m	25 m	1,020 kg / m <sup>2</sup>
0,80 mm (150 gr/ m <sup>2</sup> )	2,05 m	25 m	1,070 kg / m <sup>2</sup>
0,80 mm (200 gr/ m <sup>2</sup> )	2,05 m	25 m	1,120 kg / m <sup>2</sup>
1 mm(100 gr/ m <sup>2</sup> )	2,05 m	25 m	1,250 kg / m <sup>2</sup>
1 mm(150 gr/ m <sup>2</sup> )	2,05 m	25 m	1,300 kg / m <sup>2</sup>
1 mm(200 gr/ m <sup>2</sup> )	2,05 m	25 m	1,350 kg / m <sup>2</sup>
1,20 mm(100 gr/ m <sup>2</sup> )	2,05 m	25 m	1,480 kg / m <sup>2</sup>
1,20 mm(150 gr/ m <sup>2</sup> )	2,05 m	25 m	1,530 kg / m <sup>2</sup>
1,20 mm(200 gr/ m <sup>2</sup> )	2,05 m	25 m	1,580 kg / m <sup>2</sup>
1,50 mm(100 gr/ m <sup>2</sup> )	2,05 m	25 m	1,825 kg / m <sup>2</sup>
1,50 mm(150 gr/ m <sup>2</sup> )	2,05 m	25 m	1,875 kg / m <sup>2</sup>
1,50 mm(200 gr/ m <sup>2</sup> )	2,05 m	25 m	1,925 kg / m <sup>2</sup>
1,60 mm(100 gr/ m <sup>2</sup> )	2,05 m	25 m	1,940 kg / m <sup>2</sup>
1,60 mm(150 gr/ m <sup>2</sup> )	2,05 m	25 m	1,990 kg / m <sup>2</sup>
1,60 mm(200 gr/ m <sup>2</sup> )	2,05 m	25 m	2,040 kg / m <sup>2</sup>
1,70 mm(100 gr/ m <sup>2</sup> )	2,05 m	25 m	2,055 kg / m <sup>2</sup>
1,70 mm(150 gr/ m <sup>2</sup> )	2,05 m	25 m	2,105 kg / m <sup>2</sup>
1,70 mm(200 gr/ m <sup>2</sup> )	2,05 m	25 m	2,155 kg / m <sup>2</sup>
1,80 mm(100 gr/ m <sup>2</sup> )	2,05 m	25 m	2,170 kg / m <sup>2</sup>
1,80 mm(150 gr/ m <sup>2</sup> )	2,05 m	25 m	2,220 kg / m <sup>2</sup>
1,80 mm(200 gr/ m <sup>2</sup> )	2,05 m	25 m	2,270 kg / m <sup>2</sup>
1,90 mm(100 gr/ m <sup>2</sup> )	2,05 m	25 m	2,285 kg / m <sup>2</sup>
1,90 mm(150 gr/ m <sup>2</sup> )	2,05 m	25 m	2,335 kg / m <sup>2</sup>
1,90 mm(200 gr/ m <sup>2</sup> )	2,05 m	25 m	2,385 kg / m <sup>2</sup>
2 mm(100 gr/ m <sup>2</sup> )	2,05 m	25 m	2,400 kg / m <sup>2</sup>
2 mm(150 gr/ m <sup>2</sup> )	2,05 m	25 m	2,450 kg / m <sup>2</sup>
2 mm(200 gr/ m <sup>2</sup> )	2,05 m	25 m	2,500 kg / m <sup>2</sup>
2,50 mm(100 gr/ m <sup>2</sup> )	2,05 m	25 m	2,975 kg / m <sup>2</sup>
2,50 mm(150 gr/ m <sup>2</sup> )	2,05 m	25 m	3,025 kg / m <sup>2</sup>
2,50 mm(200 gr/ m <sup>2</sup> )	2,05 m	25 m	3,075 kg / m <sup>2</sup>