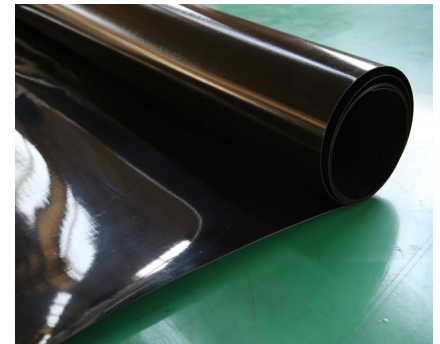




HDPE (High Density Polyethylene) Waterproof Board

HDPE waterproof board (New HDPE waterproof board) is based on the ordinary waterproof board after formula recombination, the selection of high quality low-pressure high density polyethylene raw materials, and scientific proportion of carbon black, anti-aging agent, antioxidant, ultraviolet absorber, stabilizer and other auxiliary materials, with the world's most advanced automatic earth production equipment, made of three-layer co-extrusion technology.

HDPE waterproof board is made of high density polyethylene material, the surface is smooth, no impurities, no bubbles, high toughness, high tensile strength, not easy to wear, not easy to break, can adapt to high and low temperature and certain acid and alkali, to meet the impervious and anti corrosion requirements of artificial lake impervious, sewage tank impervious, reservoir impervious, environmental protection, mining and chemical engineering projects, etc. But it also serves to strengthen and protect.



[HDPE (High Density Polyethylene) Waterproof Board]



[HDPE (High Density Polyethylene) Waterproof Board]

Waterproof board is a plastic roll material that plays a role in preventing water seepage in engineering. It is commonly referred to as waterproof board when the thickness is $\geq 0.8\text{mm}$, and when the thickness is $\leq 0.8\text{mm}$ is called geomembrane. It is a type of anti-seepage material made of polymer as the basic raw material, divided into homogeneous waterproof board and composite waterproof board. Its main function is to prevent liquid leakage and gas volatilization.

HDPE (High Density Polyethylene) Waterproof Board Features:

- HDPE waterproof board has excellent flexibility, impermeability, elongation and wear resistance;
- HDPE waterproof board has Good isolation and puncture resistance;
- HDPE waterproof board has excellent flexibility, impermeability, elongation and wear resistance;
- HDPE waterproof board without chemical pollution.

Waterproof board is a kind of waterproof material that used in tunnel, road and other underground constructions. Waterproof board with excellent impermeability play an important role in prevent infiltration and stabilize foundation. In addition, our products have high puncture resistance and tensile strength. So it is not easy to be damaged during construction. And waterproof board can be used with bentonite waterproof blanket in landfill. It can be installed in tunnel with hot melt gasket.

Drainage Products: HDPE (HIGH DENSITY POLYETHYLENE) WATERPROOF BOARD

APPLICATION

HDPE waterproof board is mainly used in the seepage prevention of earth-rock dam, rockfill dam, masonry dam, concrete dam, tailings dam, sewage reservoir dam, channel, liquid storage tank and other projects, anti-seepage lining of subway, basement and tunnel, seepage prevention of highway and railway foundation, sanitary waste landfill with the use of geotextiles, bentonite waterproof blanket and other geomaterials.

SPECIFICATIONS OF HDPE (HIGH DENSITY POLYETHYLENE) WATERPROOF BOARD

TECHNICAL INDICATORS OF HDPE (HIGH DENSITY POLYETHYLENE) WATERPROOF BOARD GB

No	Item	Index
1	-	HDPE
2	Thickness mm	0.2-4.0
3	Width m	2.5-8.0
4	Tensile strength (longitudinal and transverse) Mpa	217
5	Breaking elongation (longitudinal and transverse) %	≥450
6	Right angle tear strength N/mm	>80
7	Water vapor permeability coefficient	-
8	Operating temperature range	-
9	Carbon black content %	2.0-3.0
10	Environmental stress crack resistance F	≥1500
11	-70°C low-temperature impact embrittlement performance	pass
12	200°C oxidation induction time	>20

TECHNICAL INDICATORS OF HDPE (HIGH DENSITY POLYETHYLENE) WATERPROOF BOARD ASTM

Nominal Physical Properties	ASTM	Unit	Value
Density	D1505	g/cm ³	0.96
Melt Index	D1238	g/10 min	0.5
HLMI	D1238	g/10 min	---
Condition A, F50(100% Igepal)	D1693	h	>500
Condition B, F50(100% Igepal)	D1693	h	---
Tensile Yield Strength, 50mm/min	D638 Type IV	Mpa	26
Elongation at Break, 50mm/min	D638 Type IV	%	>300
Brittleness Temperature	D746	°C	≤40
Flexural Modulus, Tangent	D790	Mpa	950
Shore D Hardness	D2240	-	65

Our products with excellent impermeability are widely used in tunnel, landfill, waste yard and other underground constructions to prevent infiltration and protect foundation. And our waterproof board can work well without damage in high or low temperature.

PROJECTS CASE OF HDPE (HIGH DENSITY POLYETHYLENE) WATERPROOF BOARD



[Highway Waterproofing in Maseru]



[Tunnel in Bogota]

CONSTRUCTION PRECAUTIONS

- Foundation treatment: Clean the paving surface, ensure that the substrate is flat, the soil is solid, and there are no unevenness, cracks, sharp objects, stones, iron wires, wooden sticks, etc. Within the anti-seepage range, the grass and tree roots should be removed, and weed control agents should be sprayed. On the contact surface with the membrane, a layer of sand or clay with small particle size should be laid as a protective layer, and the thickness of the protective layer should not be less than 30 cm. Lay in a certain direction, but do not pull too tightly. Leave a certain amount of expansion and contraction to adapt to the deformation of the substrate. When laying waterproof boards, it is necessary to adjust the direction of each unit to facilitate the welding of two units. After laying the waterproof board, it should be pressed with a sandbag to prevent wind and sand from affecting the next step of edge welding.

- Waterproof board welding: Joint treatment is a key construction procedure, usually using hot welding method. The connected surfaces are heated to melt, and then fused into one through pressure. For the laid waterproof board, the edge joints must be free of oil stains, moisture, dust, etc. Before welding, the two edges of the joint should be adjusted to overlap a certain width, which is generally 6-8 cm and flat without wrinkles.

- Joint treatment is a key construction procedure, usually using hot welding method. The surface of the joint is heated to melt, and then fused into one through pressure.

- HDPE waterproof board is suitable for urban garbage landfill;
- HDPE waterproof board is suitable for coal ash dam treatment;
- HDPE waterproof board is suitable for solid waste disposal site;
- HDPE waterproof board is suitable for water, oil, and infusion channels;
- HDPE waterproof board is suitable for underground garages;
- HDPE waterproof board is suitable for underground warehouses;
- HDPE waterproof board is suitable for storage tanks;
- HDPE waterproof board is suitable for storage tanks;
- HDPE waterproof board is suitable for dock engineering.

