



VYGEO-HDPE

HDPE Geomembrane Liner

DESCRIPTION

VYGEO-HDPE is a high-performance geomembrane manufactured from premium high-density polyethylene (HDPE) resin, formulated with antioxidants, and stabilizers to ensure long-term durability and environmental resistance.

It provides excellent impermeability, high mechanical strength, and outstanding chemical resistance, making it ideal for critical containment applications requiring long service life.

BENEFITS

- Excellent chemical resistance (acids, alkalis, hydrocarbons)
- High tensile strength and puncture resistance
- Outstanding environmental stress crack resistance (ESCR)
- Low permeability for reliable containment
- UV stabilized for long-term outdoor exposure
- Weldable using thermal fusion (hot wedge / extrusion)
- Long service life in harsh environments

APPLICATIONS

- Landfill liners and caps
- Mining heap leach pads and tailing ponds
- Wastewater and effluent treatment ponds
- Water reservoirs and canals
- Secondary containment systems
- Industrial and environmental protection systems

INSTALLATION

- Subgrade must be smooth, compacted, and free of sharp objects
- Panels deployed using mechanical equipment
- Seaming by:
 - Hot wedge welding (double seam)
 - Extrusion welding (details/repairs)
- Overlap width: 100–150 mm
- All seams tested:
 - Air pressure testing
 - Vacuum box testing
 - Spark testing (conductive grade)
- Use geotextile protection layer where required

STORAGE & SHELF LIFE

- Store in original packaging
- Protect from mechanical damage
- Shelf life: 24 months

DIMENSIONS & PACKAGING

Parameter	Value
Thickness	2.0 mm
Width	3 m
Length	50 m
Available colors	White or black
Packaging	Rolls

TECHNICAL DATA

Property	Value (non-reinforced)	Test Method
Tension strength, MD/CD, (MPa)	$\geq 16/16$	EN 12311-2:2000
Break elongation, MD/CD, (%)	$\geq 550/550$	EN 12311-2:2000
Tear resistance, kN/m	≥ 60	ISO 34-1:2004, angle test piece die, no nick
Watertightness, 0.3MPa, 30min	Watertight	EN 1928:2000
Cold bending	-35°C, no crack	EN 495-5:2000