

The background of the entire page is a photograph of numerous large rolls of black HDPE geomembrane material stacked in a warehouse. The rolls are arranged in rows, and some have white numbers (1, 3, 6, 7, 15, 18, 20, 21) printed on their ends. A large, semi-transparent green circular logo with the text 'GEOSYNTHETICS' is overlaid on the right side of the image. A yellow horizontal bar is positioned above the 'JINSEED' text.

JINSEED

GEOSYNTHETIC SOLUTIONS

HDPE Geomembrane Liner System

Engineered for the world's most demanding containment applications — exceeding GRI GM13 standards with independently verified performance.

GRI GM13 CERTIFIED

TRI VERIFIED

CE CERTIFIED (BTTG)

IGS MEMBER

INTRODUCTION

Setting a Higher Standard for Geomembrane Performance

Modern containment projects demand liner systems that can reliably perform under extreme chemical exposure, prolonged UV radiation, and sustained mechanical loading — often for decades. Jinseed HDPE Geomembranes are engineered to exceed these demands.

From hazardous waste landfills and mining tailings facilities to reservoir liners and industrial lagoons, the consequences of liner failure are severe — environmental contamination, regulatory liability, and costly remediation.

Our products are independently tested and certified by internationally accredited laboratories. Every roll carries traceable quality records — giving engineers and site owners the confidence to specify Jinseed for their most critical projects.

"Jinseed HDPE Geomembrane is independently tested against the full GRI GM13 test suite by TRI Environmental (USA) — a standard few manufacturers worldwide can match."

ESCR

>3,000 hrs

Environmental Stress Crack Resistance — long-term performance under sustained loading

HPOIT

>600 hrs

High-Pressure OIT — outstanding oxidative and thermal resistance

THICKNESS TOLERANCE

±3%

vs. ±10% industry standard — eliminating weak points across every roll

STANDARD EXCEEDED

GRI GM13

Full-suite verification by TRI Environmental, USA

Engineered Performance Advantages

Outstanding ESCR (>3,000 hours)

Excellent resistance to environmental stress cracking under long-term loading — far exceeding the GM13 minimum of 300 hours.

Exceptional Oxidative Stability (HPOIT >600 hours)

Outstanding protection against oxidative degradation, ensuring full-life durability across the liner's service period.

Superior UV Resistance

Maintains structural integrity and performance properties even after prolonged solar radiation — suitable for extended exposed applications.

Chemical & Biological Resistance

Excellent resistance to chemical and biological degradation — ideal for mining, landfill, and aggressive industrial containment environments.

High Puncture Resistance

Engineered to withstand mechanical stresses during installation and in-service loading, significantly enhancing liner integrity and safety.

Advanced Stabilization System

Proprietary blend of antioxidants, carbon black, and UV stabilizers incorporated throughout the resin — significantly extending service life.

MANUFACTURING EXCELLENCE

Manufactured to a Higher Tolerance

EXTRUSION TECHNOLOGY

Flat Die Extrusion

Superior uniformity across the full panel width — no streaking, no variation

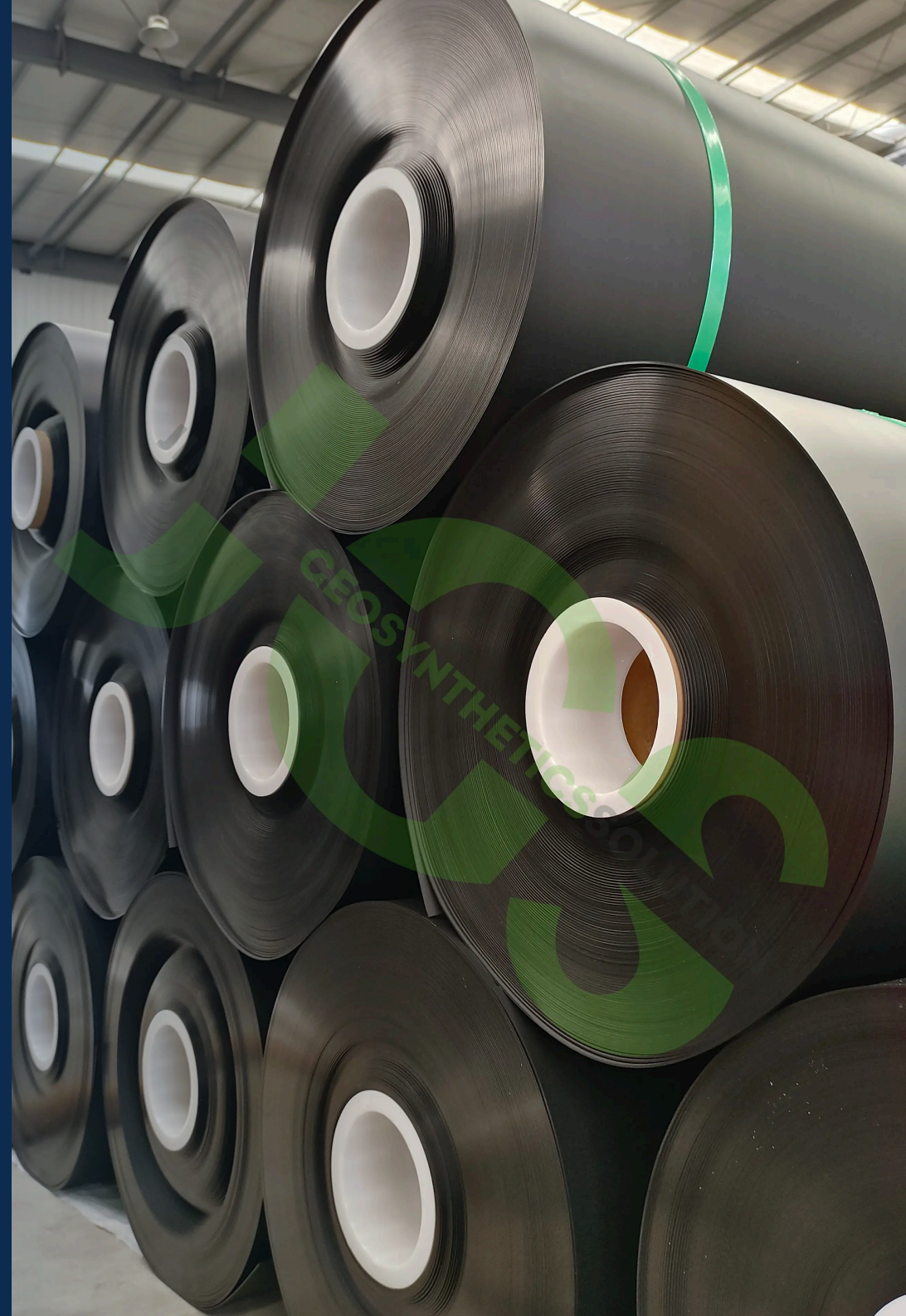
THICKNESS TOLERANCE

±3%

vs. ±10% standard — eliminating localised thin zones that create weak points

The tight ±3% tolerance is not merely a manufacturing achievement — it translates directly to liner integrity in the field. In conventional production, a nominal 1.5 mm liner may contain zones as thin as 1.35 mm. Jinseed's controlled process ensures every point across the roll meets specification.

"Flat die extrusion with ±3% thickness control — a liner you can trust at every square metre, not just on average."



Independently Verified. Internationally Recognised.

USA

TRI — GRI GM13 Full-Suite Certificate

Jinseed holds a full-panel GRI GM13 certificate from TRI Environmental (USA), the leading independent geosynthetics testing laboratory in North America — covering all physical, mechanical, and chemical performance requirements.

EU / UK

BTTG — CE Certification

CE certification issued by BTTG (British Textile Technology Group), a UKAS-accredited notified body. Confirms compliance with European harmonised standards and enables use in EU and UK civil engineering projects.


INTERNATIONAL

IGS — International Geosynthetics Society Member

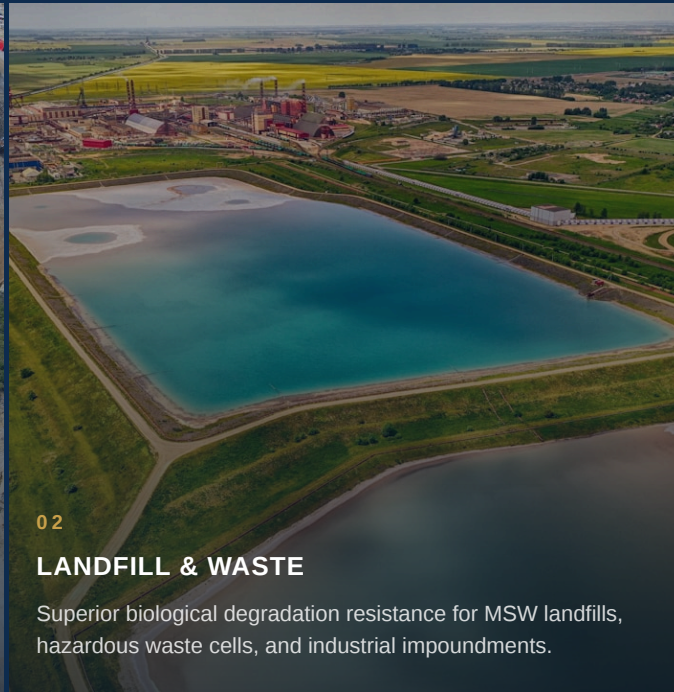
Corporate member of the International Geosynthetics Society (IGS), the world's leading professional body for the geosynthetics industry — reflecting our commitment to technical excellence and engineering best practice.

| Property | GRI GM13 Minimum | Jinseed Result | Test Method |
|---|------------------|-------------------------|-------------------|
| ESCR (Environmental Stress Crack Resistance) | 300 hours | > 3,000 hours | ASTM D5397 |
| HPOIT (High-Pressure OIT) | 400 hours | > 600 hours | ASTM D5885 |
| Thickness Tolerance | ±10% | ±3% | ASTM D5994 |
| Tensile Properties (yield / break) | Per GM13 Table | Exceeds requirement | ASTM D6693 |
| Tear Resistance | Per GM13 Table | Exceeds requirement | ASTM D1004 |
| Puncture Resistance | Per GM13 Table | Exceeds requirement | ASTM D4833 |

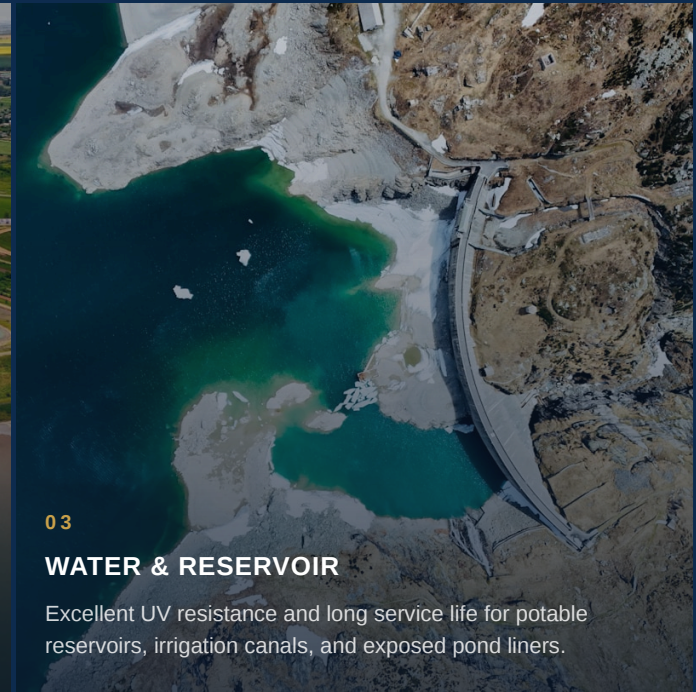
Built for the Most Demanding Environments



01
MINING & TAILINGS
High chemical resistance and exceptional ESCR for heap leach pads, tailings impoundments, and process solution ponds.



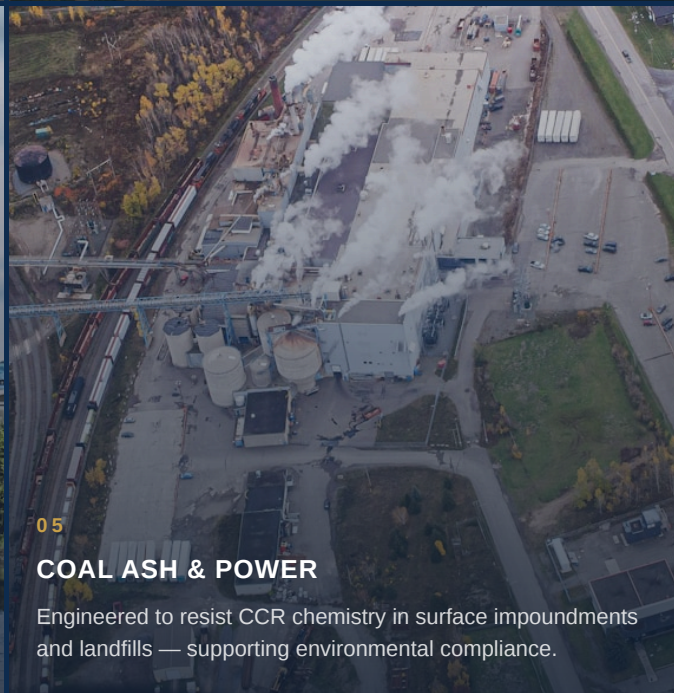
02
LANDFILL & WASTE
Superior biological degradation resistance for MSW landfills, hazardous waste cells, and industrial impoundments.



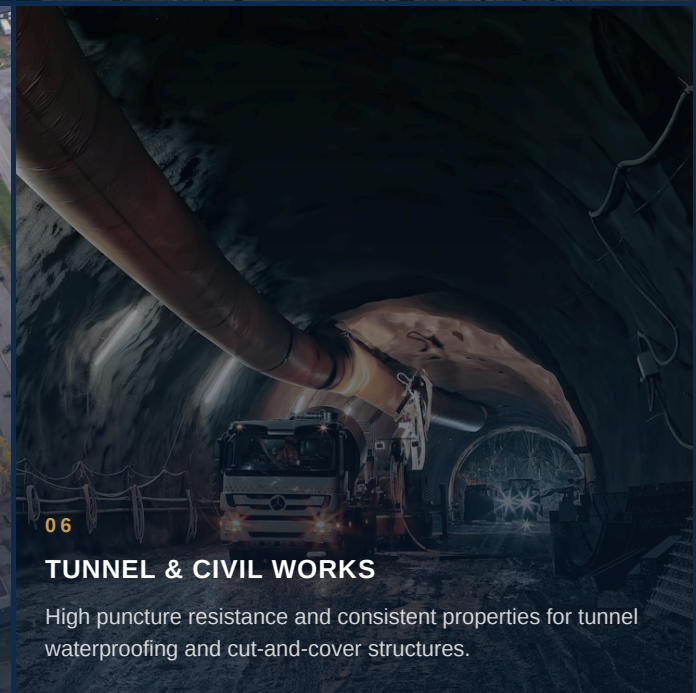
03
WATER & RESERVOIR
Excellent UV resistance and long service life for potable reservoirs, irrigation canals, and exposed pond liners.



04
SECONDARY CONTAINMENT
Consistent properties for secondary containment beneath fuel storage, chemical process areas, and industrial sites.



05
COAL ASH & POWER
Engineered to resist CCR chemistry in surface impoundments and landfills — supporting environmental compliance.



06
TUNNEL & CIVIL WORKS
High puncture resistance and consistent properties for tunnel waterproofing and cut-and-cover structures.

JINSEED

About Jinseed

Jinseed is a specialist geomembrane manufacturer committed to delivering independently verified, high-performance liner solutions for critical containment applications worldwide. Our products are manufactured using precision flat die extrusion technology and subjected to comprehensive third-party quality assurance.

As a corporate member of the International Geosynthetics Society (IGS) and holder of internationally recognised certifications — TRI GRI GM13 and BTTG CE — Jinseed is positioned to supply projects to the highest global standards.

CERTIFICATION

TRI — GRI GM13

Full-suite independent test

CERTIFICATION

CE — BTTG

European harmonised standard

MEMBERSHIP

IGS International

Geosynthetics Society

Jinseed has not performed design or engineering services to determine whether its products comply with any specific project plans or specifications. All performance data cited herein is based on independent laboratory testing results. Specifications are subject to change without notice.

