HydroNest™

Spill Containment System

Product Specification Sheet

The HydroNest is a modern, lightweight, and user-friendly spill containment solution designed for today's job sites. Built to withstand all weather conditions, it is durable enough to support equipment year-round while containing unexpected spills or leaks. Every HydroNest is handmade in North America, with a multi-layer construction engineered to absorb petroleum hydrocarbons, fuels, toxic fluids, and a wide range of oil-borne contaminants — while allowing filtered water to safely pass through.

KEY FEATURES

Effective	Environmental	Durable
• Rapidly absorbs oils, fuels & hydrocarbons • Sorbent layer captures up to 20× its weight in oil • 96%+ removal of motor oil & diesel at minimal loading • Effective on emulsified & dissolved petroleum • PAH removal efficiency in excess of 97%	• Filtered water safely passes through base • Prevents soil & groundwater contamination • TCLP tested — all VOCs & metals non-detectable • Fluorine-free, PBDE-free, CFC-free construction • Canadian foam exceeds Clean Air Act requirements	• PVC-coated mesh: UV, oil & chemical resistant • Fire retardant throughout all layers • Reticulated foam wall with auto memory shape • Crush resistant foam — bounces back under load • Handmade in North America

AVAILABLE SIZES

Size	Dimensions	Max Spill Capacity	Box Qty
Small	20" × 27"	2 L	Box of 6
Medium	39" × 27"	4.5 L	Box of 4
Large	79" × 54"	16 L	Box of 1

COMPATIBLE FLUIDS & APPLICATIONS

Effective against a wide range of hydrocarbon-based and toxic fluids, including but not limited to:

- Petroleum hydrocarbons — motor oil, diesel fuel, hydraulic fluid, gasoline, crude oil
- Vegetable and synthetic oils
- Emulsified and dissolved hydrocarbons
- Polynuclear Aromatic Hydrocarbons (PAHs)
- Oil-borne contaminants and heavy metals in runoff
- Fats, oils, and greases (FOG)

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CONSTRUCTION & MATERIAL SPECIFICATIONS

Outer Protective Mesh — Foam Wall & Base Top Surface

Material	PVC-coated woven polyester scrim mesh
Base Fibre	1000 denier polyester
Fabric Count	11 × 11 weave
Weight	9 oz/yd² (ASTM D3776)
Coating Type	PVC (polyvinyl chloride) — coated prior to weaving
Sealing Properties	Dielectric & thermal sealable
Tensile Strength	Warp 225 / Weft 280 lbs/in (ASTM D5034)
Tear Strength	Warp 85 / Weft 85 lbs (ASTM D2261)
Mullen Burst	350 PSI (ASTM D3786)
Cold Crack Resistance	No cracking after 24 hrs at -40°F on 2" mandrel
Antimicrobial	Integrated surface-bonded antimicrobial protection
UV / Chemical Resistance	UV resistant · Oil resistant · Chemical resistant
Fire Rating	Fire retardant
Application	Foam wall outer cover and top surface of absorbent base layer

Foam Wall — Canadian-Made Reticulated Foam

Foam Type	Reticulated open-cell foam
Manufacturing Process	Variable Pressure Foaming (VPF) — water-blown; no chemical blowing agents
Country of Origin	Canada
PBDE / CFC Content	Free of PBDEs and CFCs — no toxic flame retardants or ozone-depleting substances
Off-Gassing	None — process produces zero off-gassing from blowing agents
Emissions Standard	Manufacturing methods exceed Canadian Clean Air Act requirements
Foam Properties	UV resistant · Crush resistant · Auto memory shape · Fire retardant
Product Quality	Consistent cell structure; superior physical properties vs. conventional pour foam

Base — Middle Layer: Hydrocarbon Sorbent Fabric

Material	Proprietary synthetic/polymer fiber blend geotextile filtration fabric
Mass Per Unit Area	12.8 oz/yd² (ASTM 5261)
Grab Tensile (LD/CD)	118 / 89 lbs (ASTM D4632)
Elongation at Peak (LD/CD)	131% / 172% (ASTM D4632)
Puncture Resistance	72 lbs (ASTM D4833)
Trapezoid Tear (LD/CD)	64 / 45 lbs (ASTM D4533)
Mullen Burst Strength	135 psi (ASTM D3786)
Permittivity	2.02 sec^{-1} (ASTM D4491)
Permeability	0.72 cm/sec (ASTM D4491)
Flow Rate	151 gal/min/ft² (ASTM D4491)
Oil Absorption Capacity	Up to 20× its weight in motor oil; ~17× in vegetable oil (ASTM F726-81)
Motor Oil/Diesel Removal	96%+ removal at minimal loading; 97–98% at standard application rates
Emulsified Oil Removal	87–97% removal across low, medium, and high concentration levels
PAH Removal Efficiency	>97% removal across all PAH compounds tested (USEPA Method 8270)
TCLP Environmental	All VOCs, RCRA metals, pesticides & herbicides non-detectable; passes all regulatory limits
Hazardous Components	None — non-toxic, non-hazardous synthetic fiber blend
Oil Retention	<0.3% total oil released over 3-day flush/dry cycle testing
Appearance	Gray to blue-gray fiber mat; odorless
Melting Point	249°–299°C (480°–570°F)
Solubility in Water	Not soluble

Base — Bottom Layer: PU-Backed Polyester Barrier Fabric

Material	100% solution-dyed polyester with durable PU backing
Weight	7.5 oz/sq.yd (254 gsm)
Abrasion Resistance	225,000 double rubs
Tensile Strength	340 × 290 lbs (ASTM D5034)
Tear Strength	30 × 25 lbs (ASTM D2261)
Hydrostatic Pressure	1,000 mm (AATCC 127-1998)
Oil Repellency	Class 5 (AATCC 1185)
UV / Lightfastness	1,000 hours rated; UPF 50+; >97% UVA & UVB blockage
Mildew Resistance	Class 2 (AATCC 30 / ASTM G21)
Spray Rating	98 (AATCC 22)
Protective Finish	Durable water resistant; fluorine-free; solvent-free PU backing
Fire Rating	Meets CALTB117-2013, ASTM E84, MVSS-302, UFAC Class 1, NFPA 260

Sustainability	Solution-dyeing process; 99% recyclable polyester; zero CFCs released over product lifetime

ENVIRONMENTAL & SAFETY COMPLIANCE

- PBDE-free and CFC-free throughout — no toxic flame retardants or ozone-depleting substances
- Fluorine-free water-resistant finish on base fabric — zero PFAS/CFC release over product life
- Hydrocarbon sorbent layer passes full TCLP suite — all VOCs and RCRA metals non-detectable
- Canadian VPF foam exceeds Canadian Clean Air Act requirements for emissions
- Spent sorbent layer qualifies for standard landfill disposal in most jurisdictions (TTLC tested — verify with local authority)
- No off-gassing from foam blowing agents — safe for enclosed and occupied job sites

PRODUCT DIAGRAM