HULK SYSTEMS

Composite Waterproofing

Municipal Approval Submittal

Engineering & Code Compliance Data

1. SYSTEM JUSTIFICATION FOR MUNICIPALITIES

The **Hulk Composite Waterproofing System** represents the next evolution in foundation protection, replacing outdated bituminous and sheet-applied technologies. By embedding a quartz-resin infused structural textile (Hulk SRT®) into a high-build elastomeric acrylic membrane (Hulk WP®), the system creates a seamless, monolithic "cast" over the foundation.

For municipal engineers, this guarantees the elimination of the most common failure points: mechanical seams, lap joints, and puncture vulnerabilities during backfill. The system is engineered to provide a 100-year service life equivalent, withstanding hydrostatic pressure, aggressive soils, freeze-thaw cycles, and structural shifting.

2. ENVIRONMENTAL & SOIL SAFETY PROFILE

Traditional cutback asphalts and solvent-based membranes pose leaching risks to local water tables and soil microbiomes. The Hulk System is engineered for rigorous environmental compliance:

- **Ultra-Low VOCs:** $<$30 g/L (ASTM D2369). Safe for applicators and surrounding environment.
- **Water-Based & Solvent-Free:** Contains zero bituminous resins or toxic solvents.
- **Zero Soil Degradation:** ISO 16929 tested; zero degree of degradation in compost/soil.
- **Biological Resistance:** ASTM D4300 tested; no fungi or mold growth supported.
- **LEED Contribution:** Qualifies for LEED Canada/USGBC credits (IEQ4.2, MR1.1, MR2.1).

3. INDEPENDENT LABORATORY TESTING (ASTM & CGSB)

4. ALTERNATIVE SYSTEMS COMPARATIVE ANALYSIS

The following matrix outlines the engineered advantages of the Hulk Composite System over legacy waterproofing specifications.

5. QUALITY ASSURANCE & CREDENTIALS

- **Engineering Approval:** Stamped seal of approval from Envelope Engineers. Approved by Senior Certified Coating Inspectors at Intertek Inspection Services Ltd.
- **GCA 6839:2022 Compliant:** Approved Water-Resistant Membrane for Waterproofing Concrete and Insulated Concrete Form (ICF) Foundation Walls.

Performance Metric	Testing Standard	Verified Result
Fire Resistance	ASTM E84-01	Class "A" Rating (Non-combustible profile)
Elongation at Break	ASTM D412 / D2370	310% to 455% (Accommodates extreme settling)
Low-Temp Flexibility	ASTM D522	No cracking or checking at -40°F (-40°C)
Water Vapor Permeance	ASTM E96 (Method BW)	0.1 perm (Highly effective vapor barrier)
Concrete / Foam Adhesion	ASTM C836	Exceeds cohesive strength of the substrate
Impact & Puncture	CAN/CGSB 37-GP-56M	Pass (Static and Dynamic Impact)
Pin Holing Detection	CAN/CGSB 37.5-89M	No pinholes detected

System Type	Structural & Safety Performance	Durability & Risk Profile
Hulk Composite System *(Textile + Acrylic)*	Class "A" Fire-Resistant. High elongation (300%+). Moves with structure. UV-stable.	Monolithic membrane (no seams). Textile drastically increases puncture/abrasion resistance. Impervious to acidic soils.
Basic Asphalt / Bituminous *(Spray or Brush)*	No fire rating. Becomes brittle over time. Limited cold-flexibility. Not UV stable.	Susceptible to damage during backfill. Short service life. High risk of callbacks and long-term delamination.
Peel & Stick Sheet *(Self-Adhered Rubberized)*	Variable fire resistance. Relies entirely on adhesives that fail in cold/wet conditions.	Seams and laps are guaranteed failure points. Prone to punctures and tearing during backfilling process.

- **10-Year Insurance-Backed Warranty:** Uniquely backed by a national insurance agency, covering both labor and material in the rare event of a system failure, providing ultimate liability protection for builders and municipalities alike.