

HULK SYSTEMS: STPE

PK SESSION: JUNE 12, 2026



STPE: MODIFIED SILICONE-POLYURETHANE WATERPROOFING COATING



Hulk System: STPE

is a single-component, liquid-applied, fire-resistant, moisture-cure silyl-terminated polyether (STPE) waterproofing coating system. Designed to serve as an air and water-resistive barrier, it protects commercial wall systems made of concrete, mortar, masonry, and ICF foam. The coating prevents air and water leakage behind wall claddings and provides persistent adhesion to various substrates while allowing movement with high elongation properties. Its moisture-cure capability ensures adhesion to damp or green concrete.

HULK SYSTEMS: STPE

KEY UNIQUE & INNOVATIVE ADVANTAGES:

- Extreme Adhesion (>1000 psi): One of its most unique features is a superior bond strength exceeding 1000 psi on various roofing substrates, including concrete, metal, wood, and even damp or green (newly poured) surfaces.
- Single High-Build Coat: Unlike traditional systems that require multiple thin passes, Hulk STPE® can be applied in a single lift of up to 60 mils, drastically reducing labor time while ensuring a thick, durable waterproof barrier.
- Superior Hybrid Chemistry: The Silyl-Terminated Polyether (STPE) resin blend is a single-component, moisture-cure formula that provides the UV stability of silicone with the mechanical strength and high elongation (200–300%) of polyurethane.
- All-Weather Performance: It is uniquely suited for harsh climates, as it can be applied in temperatures as low as 25°F (–4°C) and is rain-safe within minutes, preventing wash-offs from unexpected storms.
- Safety & Environmental Profile: The product is nearly 0% VOC, has a very high flashpoint (247°C), and carries a Class A Fire Rating, making it both environmentally responsible and safe for high-risk industrial applications.
- Exceptional Durability: It shows no cracking or erosion during freeze-thaw resistance testing (ASTM E2484), which is critical for maintaining integrity in Canadian and northern climates.



COMPARISON: HULK STPE ROOFING VS. LEADING ROOF COATING APPROACHES

Performance Factor	Hulk STPE Roofing	Silicone Coatings	Acrylic Coatings	Polyurethane (PU)	Bituminous / Asphalt
Ponding Water Resistance	Excellent	Excellent	Poor (degrades in standing water)	Moderate–Good	Moderate
UV Resistance	High	Exceptional	Good	Moderate (needs topcoat)	Poor
Adhesion to Substrates	Very high (>1000 psi)	Often requires primer	Moderate	Strong	Moderate
Application on Damp Surfaces	Yes (moisture-cure)	Typically requires dry surface	No	No	No
Cold Weather Application	Down to -4°C	Limited	Not suitable	Limited	Limited
Elongation / Flexibility	200–300%	High	Lower	High	Low
Recoatability	Easy	Difficult (only silicone over silicone)	Easy	Moderate	Difficult
Durability / Traffic Resistance	High	Moderate	Low	Excellent	Moderate
Fire Resistance	Class A	Varies	Varies	Limited	Poor

THE PROBLEMS HULK STPE SOLVE



Ponding Water Failures

- ✓ Maintains watertight seal in standing water



Adhesion Failures on Real Roofs

- ✓ Bonds >1000 psi to concrete, metal, wood, damp surfaces



Weather Delays & Missed Windows

- ✓ Apply down to -4°C (25°F) on damp substrates



Slow Cure & Project Bottlenecks

- ✓ Rain-safe in minutes, fast cure, faster turnover



Recoat Limitations (Costly Long-Term)

- ✓ Fully recoatable — no system lock-in



Cracking & Movement Failures

- ✓ High elongation (200–300%) handles expansion, contraction, vibration



Fire & Safety Limitations

- ✓ Class A fire rating for added safety & spec compliance

MULTIPLE USES



ICF WATERPROOFING & FOUNDATION PROTECTION

Monolithic Waterproofing for ICF Construction



Designed for Foam-Based Building Systems

HULK STPE® waterproof roofing and membrane technology is exceptionally well suited for Insulated Concrete Form (ICF) construction where foam compatibility, movement tolerance, and seamless waterproofing are critical. Unlike solvent-based systems that can attack EPS foam or become brittle over time, HULK STPE® technology bonds aggressively to ICF substrates while remaining permanently flexible.

Why STPE Excels on ICF

ICF construction introduces unique waterproofing challenges:

- Foam-to-concrete transitions
- Differential movement
- Penetration complexity
- Irregular geometry
- Fastener interfaces
- Window and door integration

HULK STPE® provides a fully adhered, flexible membrane that integrates directly with the ICF assembly while maintaining continuity across transitions and penetrations.

Its ability to tolerate light moisture and unexpected weather exposure makes it particularly valuable on foundation projects where environmental conditions frequently interrupt conventional waterproofing systems.

Recommended System Areas:

- Exterior foundation walls
- Frost walls
- Cold joints
- Penetration detailing
- Pipe and conduit entries
- Sill interfaces
- Waterproof transitions to slabs and decks

WINDOW BUCKS & ROUGH OPENING PROTECTION



High-Performance Waterproofing for Window Interfaces

Window openings are one of the highest-risk areas for water intrusion in modern building envelopes.

HULK STPE® provides flexible, fully adhered waterproofing for rough openings, window bucks, and transition detailing in ICF, SIP, and conventional assemblies.

Why STPE Excels Around Openings

Window openings combine multiple dissimilar materials in a concentrated stress zone.

Traditional rigid membranes often fail due to:

- Differential movement
- Shrinkage stress
- Corner cracking
- Fastener movement
- Thermal cycling

HULK STPE® remains flexible while maintaining a durable waterproof bond. Its ability to bond over properly prepared damp substrates and tolerate rapid weather changes makes it exceptionally practical for field installation.

Recommended System Areas:

- Rough opening preparation
- Sill pan systems
- Corner reinforcement
- WRB transitions
- Flange integration
- Penetration waterproofing
- Secondary defense systems

SIP PANEL AIR & WATERPROOFING SYSTEM



Advanced Seam Protection for SIP Construction

Structural Insulated Panels (SIPs) rely on durable air and moisture management at joints, splines, penetrations, and transitions.

HULK STPE® creates a highly flexible, fully adhered waterproofing and air barrier system that protects vulnerable SIP interfaces while accommodating movement caused by thermal cycling and structural deflection.

Why STPE Works for SIP Systems

The most common SIP failures occur at:

- Panel seams
- Splines
- Roof transitions
- Mechanical penetrations
- Fastener interfaces

HULK STPE® helps create a continuous protective envelope around these vulnerable areas while remaining permanently flexible.

The system is especially valuable on exposed jobsites where changing weather conditions can compromise traditional seam treatments and liquid-applied membranes.

Recommended System Areas:

- Exterior seam reinforcement
- Transition detailing
- Flashing integration
- Roof edge protection
- Penetration detailing
- Secondary waterproofing systems

SLOPED ROOF FOAM PACKAGES & ROOFING TRANSITIONS



Flexible Waterproofing for Foam Roofing Assemblies

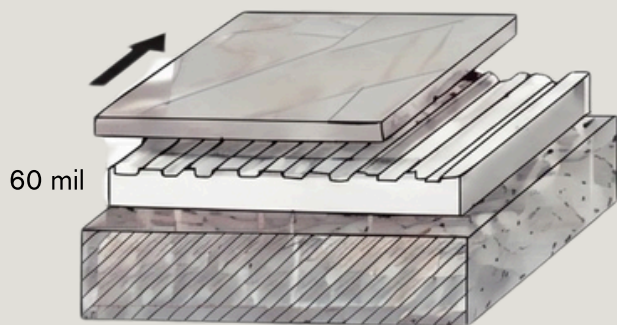
HULK STPE® can be integrated into sloped roof foam packages and roofing transition assemblies where flexibility, adhesion, and monolithic waterproofing are required. Its compatibility with foam insulation and ability to be installed beneath cover boards makes it highly effective for roofing transitions, detailing, and protected membrane assemblies.

Recommended Uses

- Transition membranes
- Flashing reinforcement
- Secondary waterproofing layers
- Protected membrane assemblies
- Roof edge detailing

THE ULTIMATE COMMERCIAL FLAT ROOF MEMBRANE

One Step. One Coat. Exceptional UV & Ponding Protection.



APPLICATION NOTE: Also acts as a capillary membrane over foam or steel decking!

Engineered for Extreme Environments

>1000 PSI Adhesion: Creates a bond so tenacious it typically causes cohesive failure in the substrate before the membrane ever peels, helping to eliminate wind uplift and undercutting.

200–300% Elongation: Remains permanently flexible to easily absorb thermal cycling, structural settlement, and dynamic roof movement without cracking or splitting.

Future-Proof & Recoatable: Unlike traditional silicones that are notoriously difficult to topcoat, STPE can be seamlessly over-coated with water-borne, acrylic, urethane, and select resinous systems. This allows you to renew the base membrane in the future rather than performing costly tear-offs.

Winter-Ready & Safe: Features a nearly 0% VOC profile and a Class A Fire Rating (ASTM E84), while being fully applicable in winter climates down to 25°F (-4°C).

THE ULTIMATE SHOWER WATERPROOFING & ADHESIVE

One Step. One Coat. 100% Waterproof.



Engineered to permanently seal shower walls and bases, it replaces tedious multi-coat systems with a single, impenetrable barrier.

The HULK STPE® Shower Advantage



Dual-Purpose Power

Acts as both a flawless 100% waterproof membrane and an extreme-strength tile adhesive in one application.



Massive Yields

Achieve a highly efficient coverage rate of 60 to 80 sq. ft. per gallon. A single 5-gallon pail yields 300+ sq. ft., easily covering 3 to 4 average showers.



Rain-Safe in Minutes

The moisture-cure chemistry actually uses water to cure. It bonds flawlessly to damp surfaces and can safely be exposed to water within 20 minutes.



Single-Coat High Build

Apply up to 60 mils in one massive lift to completely seal seams and gaps

RV ROOF SYSTEM

A longterm fix, not just another patch.



Why Standard RV Coatings Keep Failing

Typical issues you see with conventional RV roof products:

- Acrylic / lowend elastomerics: chalk, crack, and peel from EPDM/TPO
- Generic silicones: adhesion problems on dirty/aged membranes; difficult to re-coat later
- Rigid or highly filled coatings: can't handle RV frame/body flex, leading to cracks at seams and penetrations
- Poor reinforcement: seams and edges tear or reopen under movement and impact



The HULK STPE® RV Roof System

Components

- HULK STPE® - Single component & Moisture cure modified silicone polyurethane coating
- HULK SRT Fiberglass Mesh - Reinforcement mesh for seams, edges, and details.

Substrates

- EPDM/TPO, fiberglass, metal, foam (with proper cleaning and prep)

What You Get

- Fewer leaks and emergency repairs
- Better protection of your RV interior
- A longerlasting, professional roof upgrade

Use HULK STPE® + SRT fiberglass mesh as your go to flagship RV roof rebuild system; engineered for movement, impact, and long-term serviceability.

WASTEWATER & MANHOLE STRUCTURES

Flexible external waterproofing and structural rehab, not a tank liner.

Where Traditional Systems Struggle

On manholes and waste water adjacent structures (inside and outside), you've likely seen:

- Rigid cementitious coatings and mortars crack at joints, corners, and transitions
- Epoxy/PU systems blister or debond on damp concrete/brick in rehab conditions
- Limited movement accommodation in structures subject to settlement and traffic loading
- Difficulty reentering and recoating aged rigid liners
- Challenges with cold, wet environments and short bypass/traffic windows

How to Position in Specs

Specify Hulk STPE® + SRT fiberglass mesh for:

- Sealing manhole barrels, chimneys, benches, and inverts against infiltration/exfiltration
- External waterproofing of manholes, lift stations, sumps, and below grade walls in high ground water zones
- Crack and joint rehabilitation in sewer access and wastewater adjacent structures where movement and moisture are present
- Projects where a flexible, re-coatable, moisture tolerant



Intended Role of Hulk STPE®

Hulk STPE® is a single component, moisture cure silyl terminated polyether (STPE) used for:

- External waterproofing of belowgrade wastewater structures, manholes, lift station walls, and splitslab decks
- Crack, joint, and penetration treatment on manhole barrels, chimneys, benches, and inverts
- Reinforced waterproofing with Hulk SRT fiberglass mesh at highstress locations

It is explicitly not positioned as a highbuild, primary tank/vessel liner for continuous chemical immersion.



System Components

Membrane - HULK STPE®

- Modified silicone polyurethane STPE membrane
- High solids, cold liquid applied elastomeric waterproofing
- Meets ASTM C836 for cold liquid applied membranes

Reinforcement - Hulk SRT Fiberglass Mesh

- Fiberglass mesh embedded in Hulk STPE® at:
- Cracks and cold joints
- Barrel and chimney joints
- Pipe penetrations, corners, benches, and inverts
- Transitions at changes in geometry

MEMBRANES FOR BRIDGE, PLAZA & ROAD WATERPROOFING

Advanced Waterproofing & Crack-Bridging Technology for Long-Life Infrastructure



Capillary Membrane System Advantages

For bridge decks and plaza assemblies, HULK STPE® capillary membrane systems help:

- Prevent water migration into concrete structures
- Reduce chloride intrusion and rebar corrosion
- Extend service life of overlays and wearing surfaces
- Improve freeze-thaw durability
- Minimize maintenance cycles

Designed for Critical Infrastructure

Recommended Applications

- Bridge deck waterproofing systems
- Capillary membranes beneath asphalt overlays
- Plaza deck waterproofing
- Podium and parking deck membranes
- Concrete road expansion joint transitions
- Elevated walkways and transit platforms
- Tunnel and retaining wall waterproofing
- Split-slab construction assemblies
- Secondary containment and utility structures

Ideal for Modern Infrastructure Projects

Bridges

Protect reinforced concrete bridge decks from water intrusion and chloride attack while maintaining flexibility under traffic loading and thermal movement.

Plazas & Podiums

Create seamless waterproofing beneath pavers, green roofs, and pedestrian traffic surfaces.

Roads & Transportation

Support waterproofing and transition detailing in roadway systems, elevated structures, and transit infrastructure.

Typical System Build-Up

1. Surface preparation
2. Primer (if required)
3. HULK STPE® liquid-applied membrane
4. Reinforcement at critical transitions and joints
5. Broadcast aggregate or protection layer
6. Asphalt overlay, pavers, concrete topping, or wear course

ODORLESS, SOLVENT-FREE SYSTEM FOR SENSITIVE ENVIRONMENTS



Eliminate Toxic Odors, Evacuation Risks, and Air Intake Shutoffs During Your Next Roof Replacement.

Traditional commercial flat roofing relies on volatile asphalt kettles, open torch flame, or harsh high solvent coatings. These traditional systems release overwhelming, hazardous chemical fumes that infiltrate HVAC systems and force partial or full building evacuations. For highly sensitive occupied facilities, these toxic odors are not just an inconvenience; they represent a major operational and health liability. Our advanced Silyl-Terminated Polyether (STPE) waterproofing solution is 100% solvent-free and completely odorless, letting you restore your roof with absolutely zero operational downtime.



Hospitals & Active Medical Clinics

Medical wards, surgical suites, and respiratory centers cannot tolerate toxic VOC intake. STPE eliminates chemical emissions, allowing facilities to maintain strict indoor air quality requirements while work proceeds overhead.



Schools, Daycares & Universities

Protect staff and students from noxious fumes without rescheduling major capital roofing repairs exclusively for summer breaks. Work can be safely completed during standard school hours without complaints.



Senior Living & Care Homes

Noxious fumes can trigger severe health flare-ups in vulnerable or elderly residents. Our solvent-free installation eliminates the stress, logistics, and severe liability risks of temporary resident relocation.



Food Manufacturing & Microbreweries

High-solvent roof coatings pose a severe risk of chemical taint to raw ingredients and active production lines. STPE's completely inert formulation ensures pristine, uncompromised facility operations below.

BREATHABLE WATERPROOFING MEMBRANES FOR COMMERCIAL "CHANGE-OF-USE" ASSETS

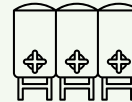
Mitigate Hidden Vapor Pressure and Structural Rot in High-Load Environmental Conversions.

Converting a standard commercial warehouse into a high-performance, specialized facility changes more than just the interior floor plan; it fundamentally alters the building's thermodynamics. Traditional commercial roof profiles are built for static, dry conditions. When your facility transitions into a high humidity or heat-intensive operation, internal moisture migration can trap water within your roof assembly, leading to accelerated structural deck rot, mold growth, and premature envelope failure.



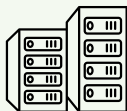
Indoor Ag & Cannabis Grow-Ops

Intense micro-climates, hydroponic setups, and continuous irrigation cycles push internal relative humidity to extreme levels. STPE prevents this continuous vapor drive from saturating the roof deck insulation from underneath.



Craft Breweries & Distilleries

Large-scale washdowns, open boiling kettles, and high-temperature fermentation processes release massive, sudden bursts of localized humidity, demanding an advanced, breathing building envelope.



Data Centers & Server Hubs

Massive computing infrastructure generates intense, continuous dry heat. This creates a powerful thermal gradient that drives any ambient structural moisture directly upward into the sub-roof layers.



Commercial Kitchens & Food Processing

Constant steam generation, rigorous sanitation protocols, and heavy HVAC air-handling requirements create erratic interior pressure dynamics that stress traditional, brittle roof membranes.

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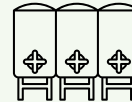
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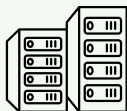
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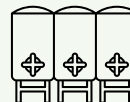
Constant steam generation, rigorous sanitation protocols, and heavy HVAC air-handling requirements create erratic interior pressure dynamics that stress traditional, brittle roof membranes.

SURFACE PREPARATION & SUBSTRATE SPECIFICATION

Proper surface preparation is the single most critical factor in ensuring long-term adhesion, preventing blistering, and maximizing the performance of the Hulk STPE® Modified Silicone-Polyurethane Waterproofing Coating System. As a single-component, high-solids, moisture-cure silyl-terminated polyether (STPE) formulation, Hulk STPE offers distinct application advantages over traditional acrylic and silicone coatings; including cold-weather installation, rain-safety within minutes, high build in a single lift, and high moisture tolerance. However, the coating still requires a sound, clean substrate to achieve its high-performance properties.

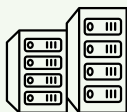
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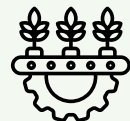
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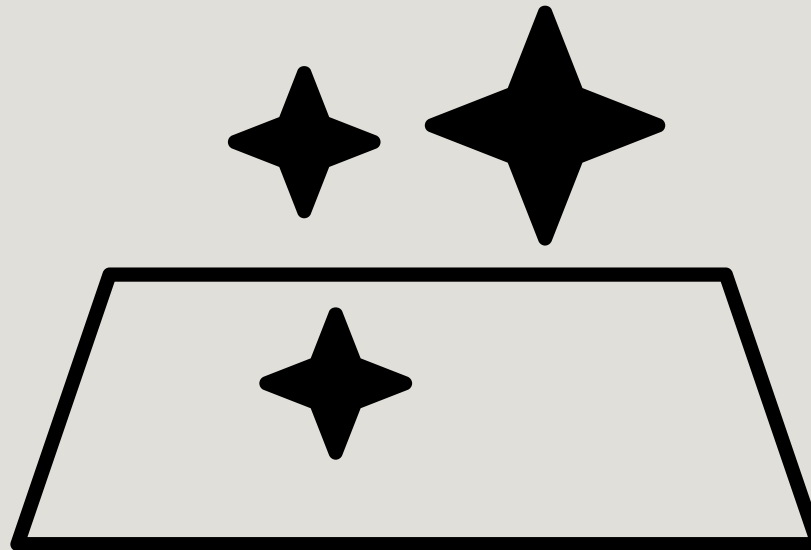
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CLEANING PROCEDURES & EQUIPMENT PRESERVATION

Why Cleaning is Critical

Hulk STPE® is a single-component moisture-cure STPE membrane that begins reacting when exposed to atmospheric moisture and humidity.

Unlike many waterborne coatings, cured material inside pumps, hoses, manifolds, guns, filters, lower packings can permanently damage equipment if not cleaned properly and immediately after use.

Proper cleaning procedures are essential to:

- Maximize equipment lifespan
- Reduce downtime
- Prevent lower pump seizure
- Maintain spray performance
- Avoid costly hose and pump replacement

General Cleaning Principles



Never Use Water

Do not introduce:

- Water
- Alcohol/water blends
- Waterborne cleaners
- Damp rags
- Compressed air with moisture into the fluid path.

Moisture exposure can initiate curing inside the system.

Clean Immediately After Use

Do not allow Hulk STPE® to:

Remain stagnant in hoses
Sit overnight in the pump
Cure inside guns or manifolds

Even partial curing can:

- Plug filters
- Damage packings
- Score cylinders
- Lock inlet/outlet balls
- Cause catastrophic lower failure

Use Only Water-Free Solvents

Recommended:

- Xylene (preferred)
- Water-free aromatic solvents
- Manufacturer-approved urethane/STPE cleaners

As referenced in Hulk STPE® product literature:
“Use alcohol or water-free solvents (e.g., xylene) before hardening.”

Avoid:

- Recycled contaminated solvent
- Water-contaminated solvent
- Ketones unless verified compatible
- Lacquer thinner blends containing moisture



THANK YOU FOR JOINING!