



PREMIUM FLUID-APPLIED ROOFING SYSTEMS

SINCE 1986

WHAT IS FLUID-APPLIED ROOFING?

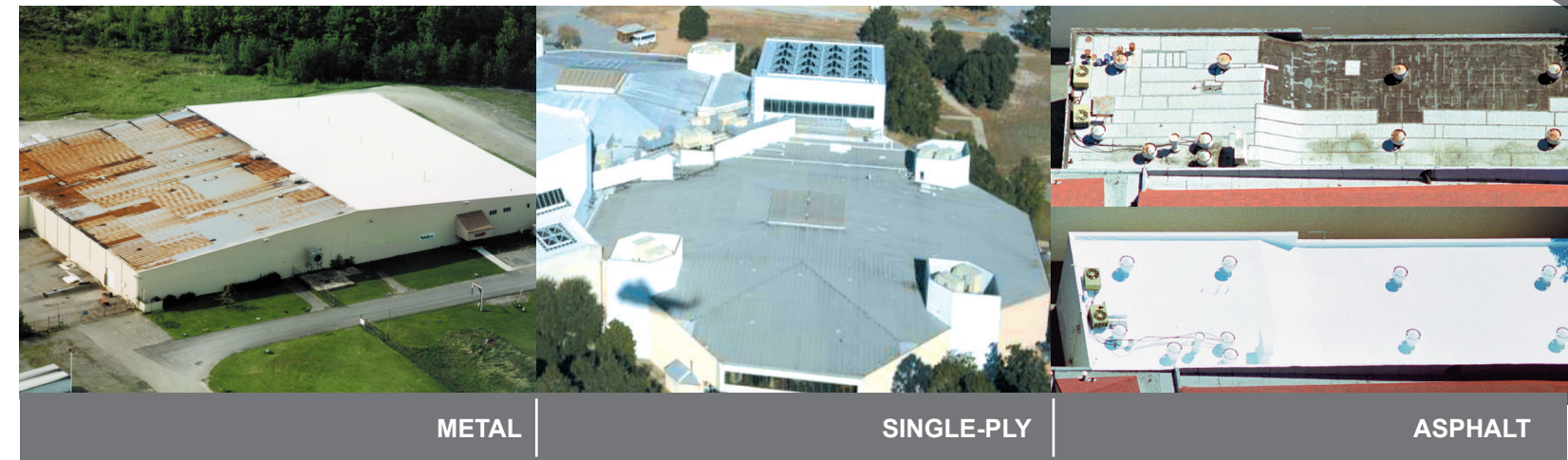
A fluid-applied roof is a multi-layered system that creates a seamless waterproof seal over an existing, qualified substrate; eliminating the need for costly roofing tear-off and replacement.

Many roofs that would qualify as substrates for conversion to sustainable, fluid-applied roofs, are being torn off every day causing huge, unnecessary expenses in facility downtime, reconstruction, and disposal costs.

Don't let your roof waste your maintenance budget. Never pay to replace a roof you can convert to a sustainable (renewable), watertight roof.

TABLE OF CONTENTS

What is fluid-applied roofing?	3
How should an existing roof be evaluated?	4
What preparation does a qualified roof require before Re-Ply™ installation?	5
Can you Re-Ply a metal roof?	6
Can you Re-Ply a single-ply roof?	9
Can you Re-Ply an asphalt roof?	10
Are all fluid-applied roofs the same?	12
Why ASTEC?	13
Other benefits from ASTEC Re-Ply Cool Roof Systems	14
How “cool” and how “green” are ASTEC Re-Ply Cool Roof Systems?	15
ASTEC Re-Ply Roofing Projects	16-17
Who should consider an ASTEC Re-Ply Roof Conversion?	18



METAL

SINGLE-PLY

ASPHALT



QUALIFICATION

Inspecting the existing roof is a basic requirement before you receive a proposal from any roof contractor. The thorough ASTEC® Re-Ply™ Systems roof survey, sometimes using infrared scanning, will determine if the existing roof is qualified to become the substrate for a fluid-applied, cool roof.



REPAIRS

Once an existing roof is qualified as a candidate for conversion to an ASTEC Re-Ply roof, necessary repairs to that substrate roof may be needed. These include drains, gutters, flashings, skylights, replacing wet insulation, etc.



SPECIFICATIONS

Detailed application specifications, matched to each substrate roof, are essential to a successful long term project.



QUALITY PRODUCTS & SYSTEMS

The renewable sustainability of fluid-applied roofing can only be achieved by using time-proven products and systems of consistently reliable quality.

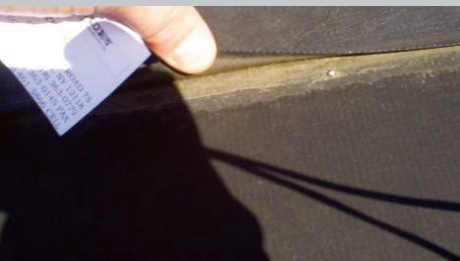


KNOWLEDGEABLE TRAINED APPLICATORS

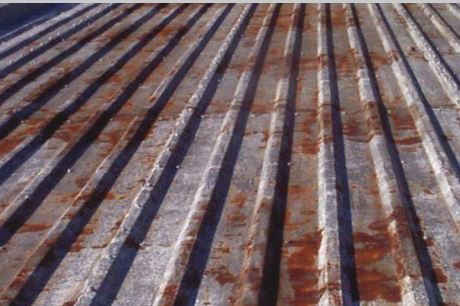
Even the best products can fail if poorly applied. Trained roof professionals, applying quality products, according to detailed system specifications, is the only way to ensure a fluid-applied roof will perform and protect as it should.

FLUID-APPLIED SOLUTIONS
SINCE 1986

SEPARATING SEAMS AND JOINTS



METAL RUST AND CORROSION



MULTIPLE PENETRATIONS



FAILING BOOTS AND FLASHING



LOOSE FASTENERS



HOW SHOULD AN **EXISTING ROOF BE EVALUATED?**

Restoring a roof with ASTEC® fluid-applied membranes is not always possible or advisable. A thorough roof survey by an authorized ASTEC contractor is a critical first step.

- ▶ They will evaluate the entire roof including all drains, parapets, penetrations, etc.
- ▶ They will inspect for material, fastener and mastic failure as well as wet insulation and other hidden problems.
- ▶ They will note slopes, joints, soft spots, and old repairs of each roof to determine whether or not the roof qualifies for successful conversion to an ASTEC® Re-Ply™ Roof.

There is an ASTEC® Re-Ply System designed to convert most traditional roofing substrates. The high quality formulations and manufacturing standards (ISO 9001-2015) of Re-Ply products allows us to restore — and warranty — metal, asphalt, and single-ply roofs. Thoroughly evaluating each roof is critical to determining its compatibility with an ASTEC Re-Ply fluid-applied system.

Every problem roof listed was solved using the appropriate ASTEC Re-Ply System, and is currently sustained under an ASTEC Renewable™ Warranty.



WHAT PREPARATION DOES A ROOF REQUIRE BEFORE **RE-PLY INSTALLATION?**

All substrates, depending on the original roofing material, have a specific ASTEC® preparation procedure. This should be done by an Authorized ASTEC Contractor.

Essential repairs are done first. Normally, this involves less than 10% of the roof area, but has been as high as 25%.

- ▶ Wet insulation replaced
- ▶ Loose material removed
- ▶ Failed substrate repaired
- ▶ Loose fasteners tightened or replaced
- ▶ Damaged drains, parapets, penetrations, etc. repaired

Substrate cleaning is very different for metal, asphalt, rubber, and the various surfaces to be converted. ASTEC provides specific rinses, rust controls, waterproofer and other products to clean and prepare each substrate.

Properly repairing, cleaning, flashing, and sealing each roof substrate is essential to the success of each ASTEC Re-Ply™ roof.

PROPERLY REPAIRING, CLEANING, FLASHING & SEALING IS ESSENTIAL

SEALING SEAMS AND FASTENERS



PROPER CLEANING TO EACH SUBSTRATE



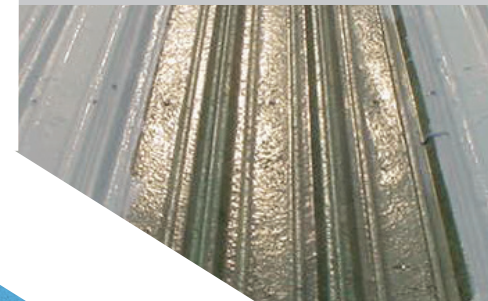
FLUID APPLIED SEAMLESS FLASHING



COMPLETELY RE-FLASH AND SEAL ALL SEAMS ON ALL SUBSTRATES



PROPER SEALING OF SKYLIGHTS



CAN YOU RE-PLY A METAL ROOF? YES!

WHY?

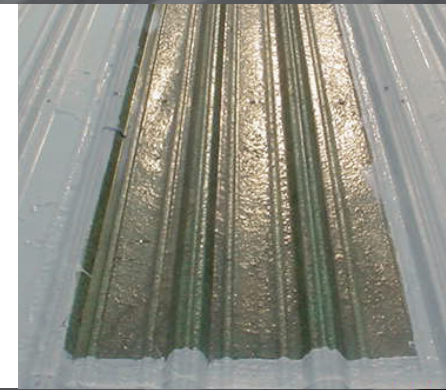
Metal roofs are composed of lapped sheets and fasteners that are highly susceptible to corrosion, wind lift, and loosening from thermal shock damage leading to constant repair and costly replacement.

WHEN?

Metal roofs with sound structure are prime candidates for an ASTEC® Re-Ply™ roofing conversion. When complete, the new seamless roof will be wind and watertight with thermal shock resistance and sustainable, non-corrosive properties.

HOW?

Metal roofs are restored, cleaned, and professionally converted to ASTEC Re-Ply roofs, using premium products, proven procedures and ASTEC Authorized Contractors.



ASTEC® RE-PLY™ SYSTEM FOR RESTORING METAL ROOFS

PREPARING THE METAL SUBSTRATE

- Repair metal roofing substrate to ASTEC specifications
- Tighten or replace all loose or missing fasteners
- Clean and power wash
- Neutralize rust with a layer of **ASTEC B-16-71 Metal Primer**

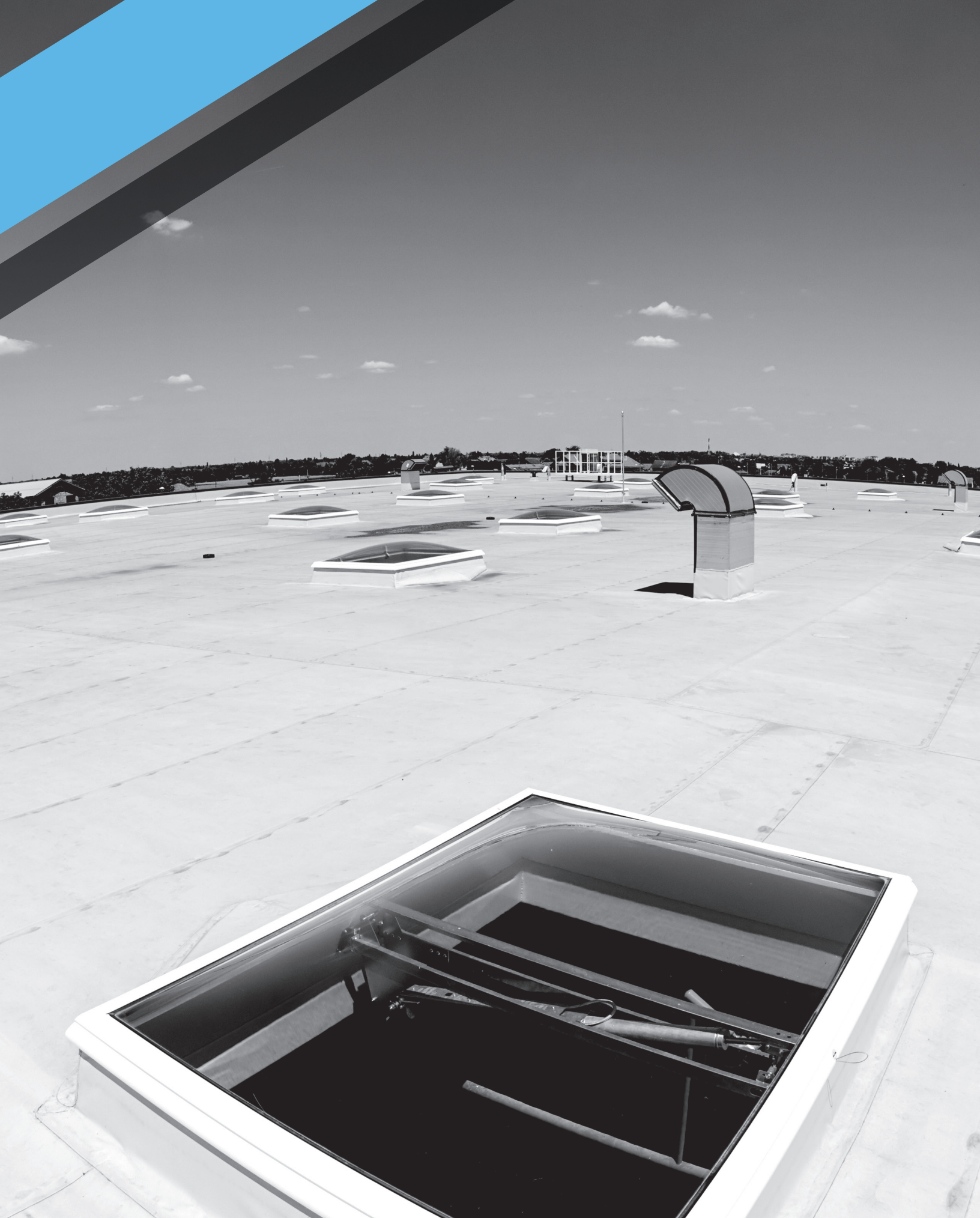
WATERPROOFING

- Recheck all fasteners and waterproof each with **ASTEC WPM 9**
- Use **ASTEC BBT Tape** or **Reinforcing Poly-Cloth** to waterproof all metal roof seams and roof penetrations including stacks, vents, skylights and parapets
- Apply a heavy layer of **ASTEC WPM 9**, encapsulating the BBT or reinforcing cloth over all seams and penetrations in a seamless, waterproof seal

FINISHING FOR WARRANTY

- Reinspect the entire roof to assure ASTEC Waterproofing Specifications
- Apply first coat of **ASTEC 2000 Finish**
- Apply additional layers of **ASTEC 2000 Finish** of choice to achieve ASTEC Renewable™ Warranty Specifications for Metal Substrate Systems





CAN YOU RE-PLY™ A SINGLE-PLY ROOF? YES!

WHY?

Single-ply roofs are sheets attached to a subsurface and are susceptible to heat and UV degradation, chalking, shrinking and separating leading to expensive repair and costly replacement.

WHEN?

Single-ply roofs with sound underlayment and good adhesion can be readily converted to an ASTEC® Re-Ply™ roof. When complete, the new seamless surface will be wind and watertight while reflecting damaging sun rays for a cooler building and longer-lasting roof.

HOW?

Single-ply roofs are restored, cleaned, and converted to ASTEC Re-Ply roofs, using premium products, proven procedures and ASTEC Authorized Contractors.

ASTEC® RE-PLY SYSTEM FOR RESTORING SINGLE-PLY ROOFS

PREPARING A SINGLE PLY SUBSTRATE

- ▶ Repair single-ply roofing substrate to ASTEC Specifications
- ▶ Neutralize chalking with **ASTEC Rinseable Cleaner**
- ▶ Clean and power wash surface
- ▶ Reinspect that the single-ply substrate is ready for Re-Ply installation

WATERPROOFING

- ▶ Use ASTEC BBT Tape or Reinforcing Poly-Cloth to waterproof all roof seams and roof penetrations including stacks, vents, stanchions, and parapets
- ▶ Coat all taping with **ASTEC Base Sealer 8**
- ▶ Apply the first monolithic coating of **ASTEC Base Sealer 8**
- ▶ Apply a second monolithic coating of **ASTEC Base Sealer 8**

FINISHING FOR WARRANTY

- ▶ Reinspect the entire roof to ensure ASTEC Waterproofing Specifications
- ▶ Apply first coat of **ASTEC 2000 Re-Ply™ Finish Cool Roofing**
- ▶ Apply additional layers of **ASTEC 2000 Re-Ply Finish** to achieve ASTEC Renewable™ Warranty Specifications for Single-Ply Substrate Systems



CAN YOU RE-PLY™ AN ASPHALT ROOF? YES!

WHY?

Asphalt roofing, modified bitumen, or rolled roofing are susceptible to heat and UV degradation, splitting, and cracking leading to constant repair and costly replacement.

WHEN?

Asphalt roofs with sound underlayment, and repairable substrates can be converted to ASTEC® Re-Ply™ roofs. When complete, the new seamless surface will be wind and watertight while reflecting damaging sun rays for a cooler building and longer-lasting roof.

HOW?

Asphalt roofs are restored, cleaned, and professionally converted to ASTEC Re-Ply roofs, using premium products, proven procedures and ASTEC Authorized Contractors.



ASTEC® RE-PLY™ SYSTEM FOR RESTORING ASPHALT ROOFS

PREPARING THE ASPHALT SUBSTRATE

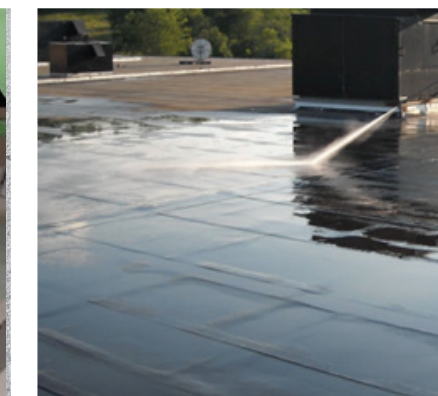
- ▶ Repair the asphalt roofing substrate to ASTEC® Specifications
- ▶ Clean and power wash
- ▶ Reinspect that the asphalt substrate is ready for Re-Ply resurfacing

WATERPROOFING

- ▶ Use **Reinforcing Poly-Cloth** and/or **WPM 10** to waterproof all roof seams and roof penetrations including stacks, vents, stanchions and parapets (Some asphalt roofs require full cloth reinforcement)
- ▶ Coat all taping with **ASTEC Base Sealer 4**
- ▶ Apply the first monolithic coating of **ASTEC Base Sealer 4**
- ▶ Apply a second monolithic coating of **ASTEC Base Sealer 4**

FINISHING FOR WARRANTY

- ▶ Reinspect the entire roof to assure ASTEC Waterproofing Specifications
- ▶ Apply first coat of **ASTEC 2000 Re-Ply™ Finish** Cool Roofing
- ▶ Apply additional layer of **ASTEC 2000 Re-Ply Finish** to achieve ASTEC Renewable™ Warranty Specifications for Asphalt Substrate Systems



ARE ALL FLUID-APPLIED ROOFS THE SAME? ABSOLUTELY NOT!

Fluid-applied roofing materials, formulations, preparation methods and application systems vary greatly in performance among brands. In fact, some products are little more than a thin layer of reflective paint to temporarily ward off damaging UV sunlight. These low-end products are not intended to be waterproof, sustainable, or guaranteed to any standards or specifications.

ICP Building Solutions Group (ICP BSG) is an enthusiastic partner in environmental conservation and protection — from material acquisition, through manufacturing, to installed ASTEC systems.

ALWAYS ASK:

- ▶ Is it waterproof?
- ▶ Is there a roof system specific for my roof?
- ▶ Is it applied by an authorized contractor?
- ▶ What is the warranty?
- ▶ Is it sustainable/restorable?
- ▶ Is it Energy Star partnered?
- ▶ Is it “Green”?
- ▶ Is it LEED qualified?
- ▶ What are the tax advantages?
- ▶ Is the manufacturer ISO registered?

ENERGY STAR® is a dynamic government/industry partnership that offers businesses and consumers energy-efficient solutions, making it easy to save money while protecting the environment for future generations.



USGBC is a 501(c)(3) non profit organization that certifies sustainable businesses, homes, hospitals, schools, and neighborhoods. It is dedicated to expanding green building practices and education, and its LEED® (Leadership in Energy and Environmental Design) Green Building Rating System™.



ISO International Organization for Standardization - The source of ISO 9000, ISO 14000 and more than 14,000 International Standards for business, government and society. A bridge between public and private sectors.



SAVING YOUR ROOF.
SAVING MONEY.
SAVING ENERGY.

WHY ASTEC?

ASTEC® RE-PLY™ PRODUCTS — QUALITY AND CONSISTENCY

Having quality control, through ISO 9001-2015 registered manufacturing standards, assures consistency batch after batch, year after year. Working with the finest grade ingredients assures a quality base for a sustainable, long-term, renewable roof.

ASTEC RE-PLY SYSTEMS — SUBSTRATE-SPECIFIC SPECIFICATIONS

In addition to superior products, ASTEC, Re-Ply Roof Systems are systematically applied, to time-tested specifications, using combinations of products specific to metal, asphalt, single ply, and other original roof substrates.

ASTEC AUTHORIZED CONTRACTORS — EXPERIENCE AND KNOW-HOW

The best fluid-applied roofing products and systems are only as good as their installation. Some of the most skilled ASTEC trained and authorized contractors have been with us from the beginning in the mid 80's. Every new roof conversion is carefully considered, scheduled, and applied to strict ASTEC Re-Ply specifications.

ASTEC RENEWABLE™ WARRANTIES — ASSURING SUSTAINABILITY

Quality products, knowledgeably applied, to warranty specification, allows ICP BSG to warranty the waterproof sustainability of ASTEC roofs with the only roof warranty trademarked as “Renewable”— in 10 and 15 year terms.

MANY YEARS OF SATISFIED CUSTOMERS — HUNDREDS OF MILLIONS OF SQ. FT. WORLDWIDE

Quality and consistency from manufacturing, through installation, to warranty renewals, lead to very satisfied customers. ASTEC has earned many kudos from repeat and first-time customers continually surprised by the cost-to-return values of ASTEC roofs.

KEEPING IT SIMPLE FOR EVERYONE

Economically, environmentally, and from every performance perspective, ASTEC Re-Ply fluid-applied cool roofing has simply become the smart choice.

The ASTEC® RENEWABLE™ Warranty covers both materials and labor. Renewable is the definition of a sustainable roof. An ASTEC Re-Ply roof can be restored and the warranty renewed at big savings.



OTHER BENEFITS FROM ASTEC RE-PLY COOL ROOF SYSTEMS



Installation savings up to 50% or more - ASTEC Re-Ply fluid-applied roof systems can be installed directly over most traditional roof substrates. Tear-off, land-fill fees, reconstruction, and long facility disruptions are eliminated.



A UV solar shield - The ASTEC Re-Ply Cool Roof Systems have superior resistance to UV degradation than most traditional roofing materials.



Seamless wind and weather protection. Once all the old joints, fasteners, and leaks are made watertight, seamless layers of ASTEC Re-Ply waterproofing and finish coats are applied as monolithic systems — resulting in greater wind resistance.



A corrosion barrier - ASTEC Re-Ply formulations are highly resistant to ocean salt spray, acid rain, and other airborne contaminants.



All-weather stability - Once cured, an ASTEC Re-Ply surface retains its flexible, watertight superiority in extremes of heat or cold, and dry or wet conditions.



Reduces thermal shock damage - ASTEC Re-Ply cool roof systems minimize the effects of varying coefficients of expansion and contraction within roofs that cause damaging shifts, cracking, and loosening conditions.



Provides Cool Roof / Green Roof Benefits - ASTEC Re-Ply Systems meet or beat all known public and private standards for cool roof and many green roof credits and incentives. Save installation costs. Save energy. Save the planet. ASTEC white is “Green”.



The **ASTEC® RENEWABLE™ Warranty** - A professionally applied ASTEC Re-Ply roof is warranted for 10 or 15 years — Material AND Labor. The roof can be renewed for a fraction of original cost based on today's dollar value.

Never pay extra to tear off a roof and replace it — if you can Re-Ply it!

HOW “COOL” AND HOW “GREEN” ARE ASTEC RE-PLY SYSTEMS?

By converting existing roofing substrates to ASTEC® Re-Ply™ sustainable cool roofing, other “green” benefits are achieved:

- ▶ Restoring and reusing existing roofing substrates
- ▶ Eliminating tear-off costs
- ▶ Reducing landfill
- ▶ Extending roof and building longevity
- ▶ Reducing energy consumption and carbon footprint

Building owners and managers with ASTEC Cool Roofing Systems point out the ability to increase occupant comfort and productivity while reducing their cooling budgets and HVAC equipment maintenance.

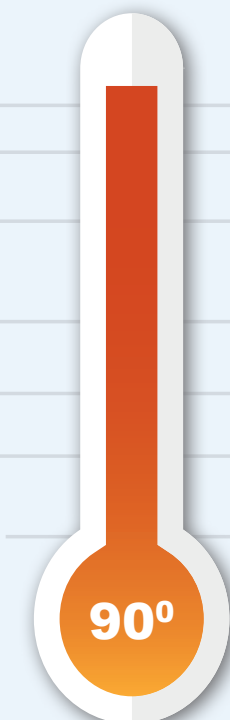
ROOF HEAT GAIN COMPARISON



CALIFORNIA FOOD PROCESSING PLANT

The effect of the solar roof reflectance on the building heat gain suggests that light colored roofs have 30% lesser heat gain when compared to a dark colored roof. See the chart on the right to compare different materials.

Black Materials	180°
Asphalt Shingles	175°
Built Up Roof Covered with Gravel	170°
Aluminum Asphalt	155°
Medium Grey	142°
Rough White Surface	125°
White Smooth Material	105°



90°

ASTEC® RE-PLY™ ROOFING PROJECTS



New York Air Cargo Warehouse
140,000 sq. ft. Metal

Limited preparation costs reduce conversion expenses even further, gaining ASTEC Re-Ply sustainability for long-term savings.



Missouri Food Processing Facility
112,000 sq. ft. Modified Asphalt

Roof tops having multiple penetrations realize huge savings utilizing a seamless, water-tight, fluid-applied roof.



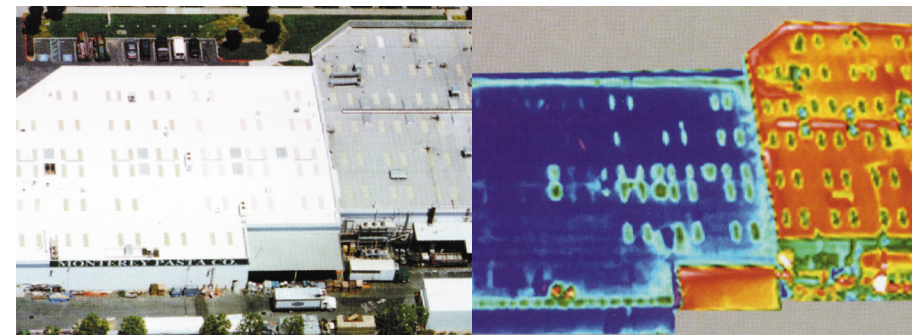
New England Food Chain Facility
100,000 sq. ft. EPDM (Rubber)

Prudent companies have tested one or two sites, in different climates, before launching a broader program to universally upgrade to sustainable ASTEC Re-Ply roofing.



Texas Manufacturing Facility
1 million+ sq. ft. Metal

ASTEC Re-Ply systems permit building-by-building roof conversions as needs and budgets demand.



California Food Processing Plant
38,000 sq. ft. Asphalt

ASTEC Re-Ply converted roof sections proved to be as much as 65°F cooler.



Massachusetts Utility Company
22,000 sq. ft. Metal

Energy studies have proven air-conditioning energy savings, even in northern states, can outweigh any cool roofing "winter penalties."



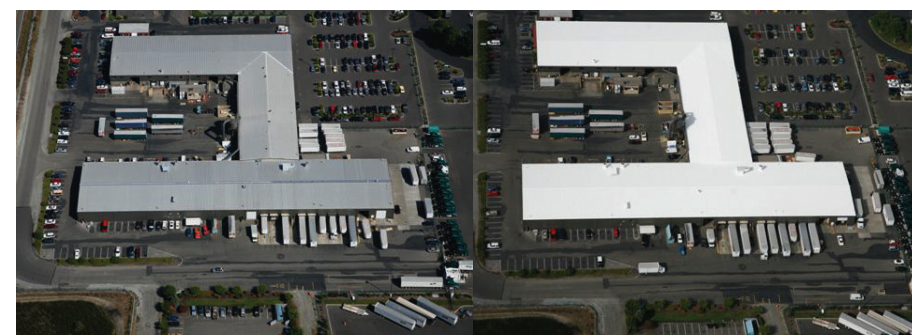
New York Housing Facility
40,000 sq. ft. EPDM Rubber

High-rise roofing involves cranes and other costly urban problems are avoided by using the ASTEC Re-Ply roofing system.



Illinois Food Manufacturer
20,000 sq. ft. Cap Sheet

When two roof layers exist, building codes require tear-off, but not with ASTEC Re-Ply systems.



Washington State Manufacturer
90,000 sq. ft. Metal

ASTEC Re-Ply roof conversions and renewals use a fraction of the time and cost of tear-off, reducing maintenance budgets.

WHO SHOULD CONSIDER AN **ASTEC®** **RE-PLY™** ROOF CONVERSION?

ARCHITECTS AND CONSULTANTS

whose clients' buildings have aging roofs of various materials, and who wish to eliminate costly tear-off while gaining the sustainability of a fluid-applied roof. Those clients will also benefit from ASTEC® Re-Ply™ cool roofing advantages.



- Proven roofing technology
- EPA Energy Star cool roofing performance
- Meets LEED green building guidelines
- Recognized leadership, dedicated to fluid-applied development
- ISO 9001:2015 registered manufacturer
- Detailed specifications and professional installation
- Knowledgeable regional ASTEC representatives
- ASTEC educational and technical support

BUILDING OWNERS AND MANAGERS

who wish to benefit from a long-term, sustainable, and renewable solution to costly roof tear-off.



- Eliminates tear-off and landfill expenses
- No building shutdowns or disruptions required
- Converts qualifying roofs to sustainable cool roofs
- Huge savings on multi-penetration roofs
- Reduces cooling costs
- Promotes occupant comfort
- Meets public and private energy consumption goals
- Qualifies for energy incentives
- Taxed as maintenance OR capital investment
- Reduces cooling equipment maintenance
- Reduces thermal shock and UV degradation
- Reduces building life cycle costs
- Long term sustainability under RENEWABLE™ Warranty

CONTRACTORS

who join the authorized ASTEC Re-Ply team can offer customers non-intrusive, lower cost conversion to sustainable, cool and green roofing technologies while working with a leading manufacturer of high quality, fluid-applied roofing systems.



- Regional ASTEC Authorized Contractor/Applicators
- Join with a manufacturer dedicated to fluid-applied roofing
- Over 30 years perfecting premium products
- Hundreds of millions of square feet in use
- Detailed specification writing assistance
- Technical in-house and field support
- Ideal for public agencies under direction to be energy conscious






CONTACT **ASTEC**[®] **RE-PLY ROOFING**

If you need a roof qualified, a national ASTEC[®] Re-Ply[™] rep will assess your request and work with the appropriate ASTEC authorized contractor to do the on-site roof analysis.

 607.723.1727 or 800.223.8494

 607.723.1700

 info@icc-astec.com

 www.icc-astec.com

View a 3 minute presentation online at
www.whyreplace.com

