

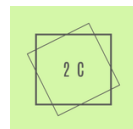
WHITEPAPER

ELAPROOF ROOFING SYSTEMS

TRANSFORMING ROOFS FROM RECURRING COST CENTERS INTO LONG-TERM ASSETS

Prepared by: Kaksi Consultants
Technology: ElaProof Elastic Protective
Coating System

www.kaksiconsultants.com



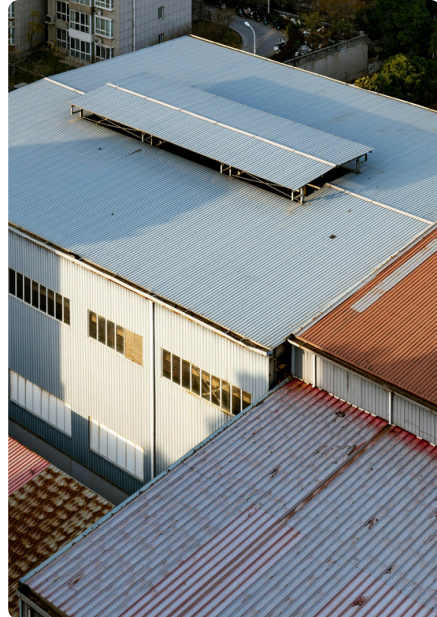
Executive Summary

Across commercial, industrial, and public infrastructure, roofing systems represent one of the most frequent and costly maintenance liabilities. Traditional roofing solutions degrade under environmental stress, leading to leaks, structural damage, and repeated capital expenditure.

ElaProof introduces a new category of elastic, seamless roofing protection, designed to extend roof lifespan by decades while reducing lifecycle costs, energy consumption, and operational disruption.

This whitepaper outlines how ElaProof transforms roofing from a recurring maintenance expense into a long-term performance asset.

- **800% elasticity**
- **70+ year lifespan**
- **Seamless membrane**
- **Zero VOCs**



The Roofing Problem: A Global Infrastructure Cost Driver

Roof systems fail for predictable reasons:

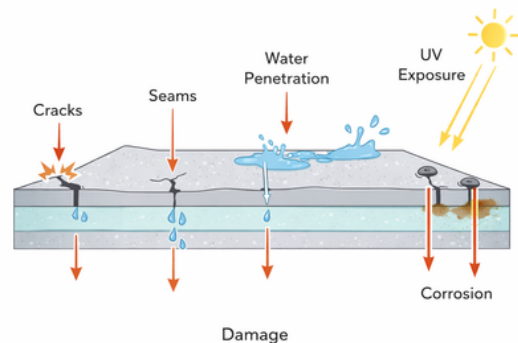
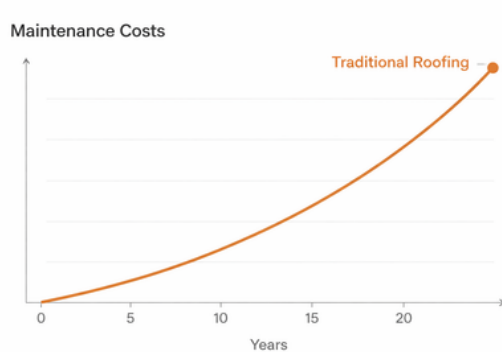
- Moisture infiltration through cracks and seams
- UV degradation and thermal expansion
- Corrosion of metal substrates
- Failure at joints, penetrations, and transitions
-

Traditional systems struggle to handle movement and environmental stress.

As a result:

- Roofs require frequent repairs and recoating
- Leaks lead to structural and interior damage
- Facilities face downtime and operational disruption
- Owners incur repeated capital expenditures
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Even modern coatings often provide limited lifespan and inconsistent performance, especially in extreme environments.



ElaProof Roofing Technology: A New Standard

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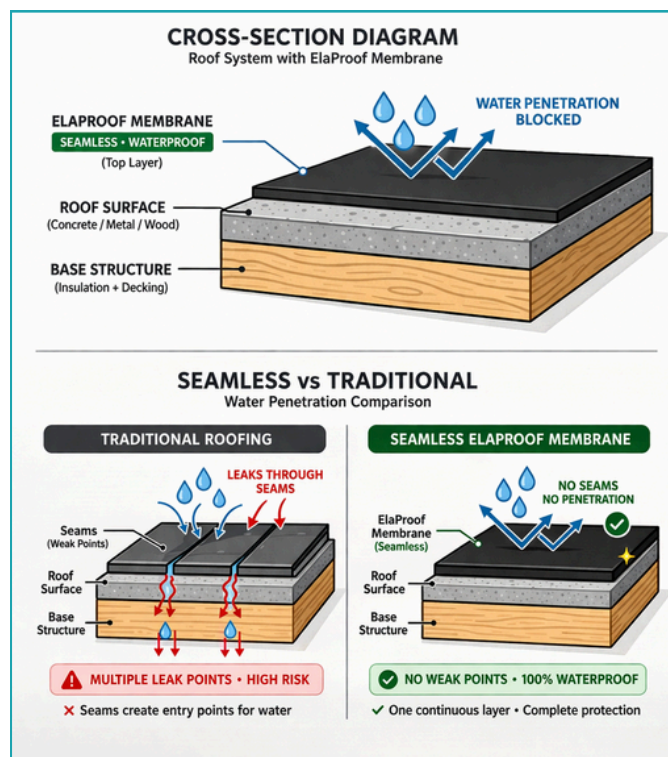
ElaProof is a one-component, water-based elastic coating that forms a seamless, fully bonded waterproof membrane across roofing systems.

Unlike traditional coatings, ElaProof:

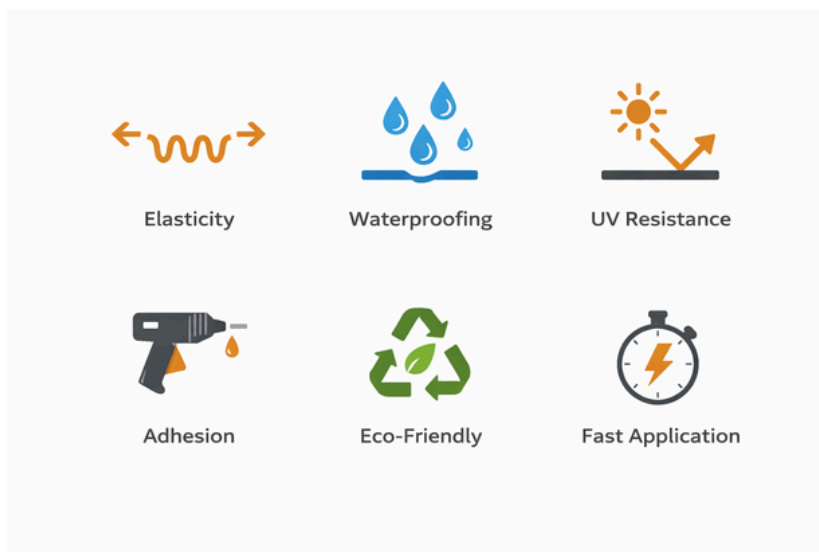
- Bonds directly to the substrate
- Eliminates seams and weak points
- Maintains elasticity over time
- Provides continuous waterproof protection

It is designed for:

- Roof coating, repair, and renovation
- Sealing penetrations, joints, and seams
- Extending the life of existing roofing systems



Key Performance Advantages for Roofing



Extreme Elasticity = No Cracking, No Failure

ElaProof maintains long-term flexibility, allowing it to:

- Accommodate thermal expansion and contraction
- Bridge cracks and structural movement
- Maintain integrity where rigid systems fail

This elasticity remains stable for decades, preventing common failure modes in conventional coatings.

Seamless Waterproof Barrier

ElaProof creates a joint-free membrane, eliminating the most common sources of leaks:

- Seams
- Fasteners
- Penetrations

This results in:

- Reduced water ingress
- Protection of underlying structures
- Long-term waterproof reliability

Proven Durability in Extreme Environments

Developed and tested in harsh Nordic conditions, ElaProof is engineered to withstand:

- Extreme temperature fluctuations
- UV radiation
- Moisture and freeze-thaw cycles

The coating:

- Protects against corrosion
- Stops rust progression under the coating
- Extends roof lifespan by decades

commercial and industrial buildings.

Key Performance Advantages for Roofing Cont'd

Multi-Surface Compatibility

ElaProof can be applied to:

- Metal roofs
- Bitumen roofs
- Fiber cement roofs
- Concrete surfaces

This allows retrofit instead of replacement, significantly reducing capital costs.

Safe, Sustainable, and Compliant

ElaProof is:

- Isocyanate-free and solvent-free
- Non-toxic and environmentally friendly
- Safe for workers and occupants

It aligns with:

- ESG goals
- Environmental regulations
- Modern public procurement requirements

Energy Efficiency with Cool Roof Technology

ElaProof also offers reflective roof solutions such as cool roof coatings,

which:

- Reflect solar radiation
- Reduce roof temperature
- Lower cooling energy demand
- Improve indoor comfort
- Used anywhere that requires use of air conditioner

These coatings can significantly reduce operating costs for commercial and industrial buildings

Extreme Heat is Driving Energy Costs and Roof Failure

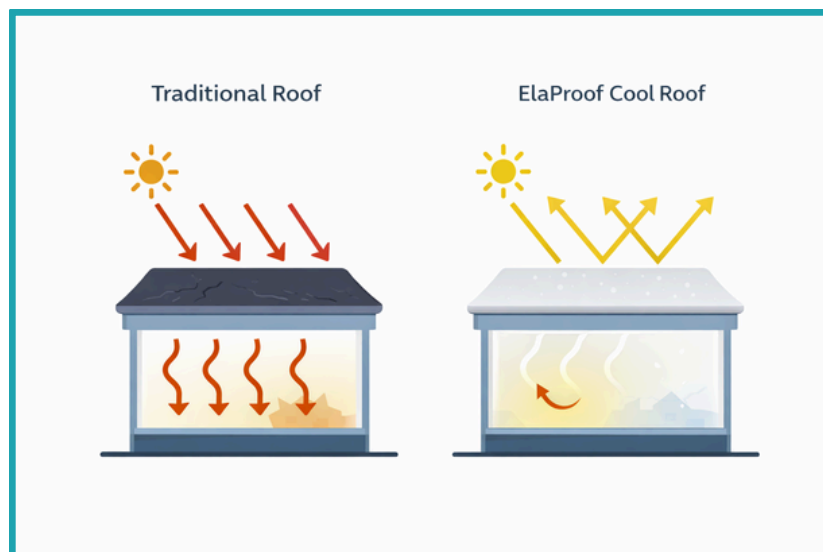
Traditional roofing systems absorb heat, increasing cooling demand, accelerating deterioration, and driving long-term costs.

During extreme heat conditions, traditional roofing systems act as heat absorbers rather than protective barriers.

Roof surfaces can reach 150–180°F under direct sunlight, transferring heat into the building, increasing cooling demand, and accelerating material degradation.

Impact of Heat on Roofing System

- Increased indoor temperatures
- Higher HVAC energy demand
- Rising electricity costs
- Accelerated roof deterioration
- Shortened roof lifespan



THE SOLUTION: ELAPROOF COOL ROOF

ElaProof Cool Roof: Reflect Heat, Reduce Costs, Extend Lifespan

ElaProof transforms roofing systems into active thermal barriers, reflecting solar radiation and reducing heat absorption.

By limiting heat transfer into the building, ElaProof Cool Roof reduces energy demand, operational costs, and long-term structural stress.

Key Benefits

- Reflects up to ~80%+ of solar radiation
- Reduces roof surface temperature significantly
- Lowers HVAC demand and energy consumption
- Minimizes thermal expansion and contraction
- Extends roof lifespan
- Improves building efficiency

ElaProof Cool Roof delivers value across multiple dimensions:

- Operational: lower energy consumption and reduced peak demand
- Financial: reduced lifecycle costs and deferred capital replacement
- Structural: extended roof lifespan and reduced maintenance cycles
- Environmental: supports energy efficiency and sustainability goals

ElaProof transforms roofing from a passive surface into an active system for energy efficiency, cost reduction, and long-term asset protection.

VALUE & DEPLOYMENT IMPACT

Lower Lifecycle Cost, Minimal Disruption, Maximum Deployment Flexibility

Financial Impact

ElaProof converts roofing from a recurring capital expense into a long-life protected asset system.

- Reduces frequency of full roof replacement
- Enables targeted repair instead of full system overhaul
- Lowers total lifecycle cost
- Extends usable service life of existing roofs
- Defers major capital investment cycles

Operational Advantages

ElaProof is designed for real-world deployment in active environments where downtime is costly or unacceptable.

- Cold application (no heat, flames, or welding)
- Can be installed while facilities remain operational
- Fast application via spray, roller, or brush
- Bonds to damp or challenging substrates
- Reduces disruption to tenants, operations, and services

Ideal Deployment Environments

ElaProof delivers maximum value in assets with high exposure, high cost of failure, or high maintenance burden.

Commercial & Industrial Facilities

Warehouses

Office buildings

Manufacturing plants

Logistics and distribution centers

Retail complexes

Public Infrastructure

Schools and universities

Apartment buildings

Private Homes

Government buildings

Transportation facilities

High-Risk Roofing Systems

Aging or failing roofs

High UV or heat exposure regions

Buildings with frequent leak history

Roofs nearing end-of-life replacement

Across financial, operational, and environmental dimensions, ElaProof enables infrastructure owners

CONCLUSION

Reframing Roofing as a Long-Term Infrastructure Asset

Roofing systems are one of the most persistent and underestimated cost drivers in infrastructure and real estate portfolios. Traditional systems operate on a cycle of degradation, repair, and replacement that drives continuous capital expenditure and operational disruption.

ElaProof introduces a fundamentally different approach, transforming roofing from a reactive maintenance burden into a long-term protective asset system.

Key Takeaways

- Traditional roofing systems fail due to moisture, UV exposure, thermal stress, and structural movement
- These failures lead to recurring maintenance, leaks, and premature replacement cycles
- ElaProof provides a seamless, elastic, and durable protective membrane designed for long-term performance
- The system reduces lifecycle costs, minimizes operational disruption, and extends asset service life
- Cool Roof capabilities further enhance energy efficiency and reduce HVAC demand in high-heat environments

Strategic Impact

ElaProof enables organizations to shift from:
Reactive maintenance → Proactive asset protection
Short-term repair cycles → Long-term infrastructure planning
High operational disruption → Continuous facility operation

ElaProof is not simply a roofing product, it is a lifecycle infrastructure solution that improves durability, reduces cost exposure, and supports modern sustainability and asset management goals.

By extending the performance life of existing roofs, ElaProof allows asset owners to protect infrastructure longer, spend less over time, and operate with greater resilience.

Protect assets longer. Reduce lifecycle cost. Modernize infrastructure performance.

