



IN A CONSTANTLY CHANGING WORLD
WE KEEP MOVING FORWARD

ALFA ALFA ENERGY S.A.

Bituminous, Chemical & Waterproofing Materials Industry



we know how
since 1962

1928

The company **Esha** (a combination of the initials of its founders' names) is founded in Groningen, the Netherlands, by Smid and Hollander, and its main activity is the production of bituminous products.

1962

Esha begins operations in its privately owned 15,000 sq.m. facilities on the coast of Aspropyrgos, Attica, introducing the production and distribution of bituminous emulsions in Greece for the first time.

TODAY

The company boasts over **six decades** of continuous presence in the Greek market with the production and marketing of a wide range of specialized products for **insulation, thermal insulation, road infrastructure & road building projects**.



USEFUL INFORMATION

Headquarters: Aspropyrgos, Attica
Administration Offices | Production Facilities - Warehouses | Quality Control & R&D Department | Logistics Department
Offices & Warehouses in **Thessaloniki**
Subsidiary in **Bulgaria**
Production capacity exceeding 9,000,000 sq.m. per year in **bituminous waterproofing membranes**
More than **500** different sealing products

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we know how
since 1962

OUR **VALUES**

CARE

We are committed to providing our customers with the best possible value-for-money solutions.

INNOVATION

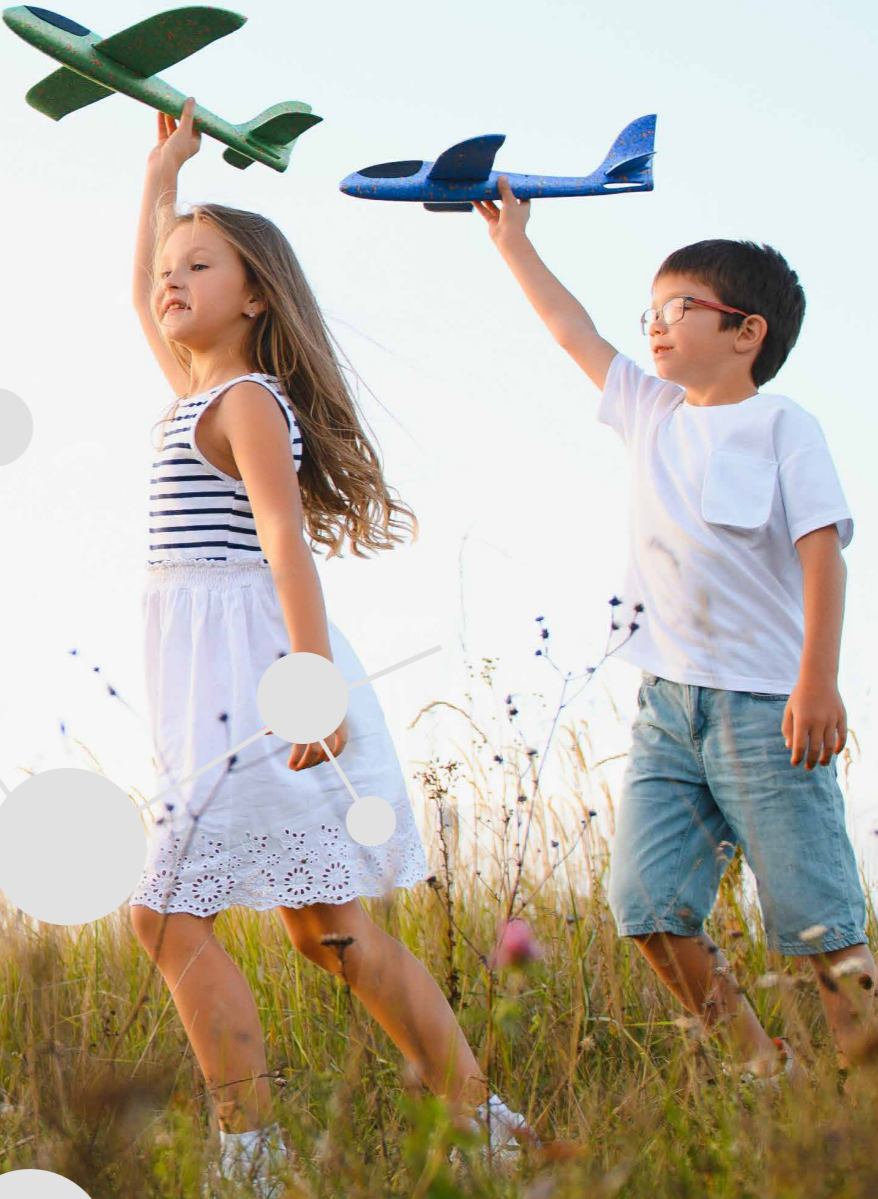
We stay at the forefront of industry advancements, continuously exploring new methods and processes to enhance our existing products and develop new ones that meet our customers' evolving needs.

RELIABILITY

We are committed to consistency and transparency in our communication with customers, ensuring they have a clear understanding of what we can offer.

SUSTAINABILITY

We design and develop products that address today's needs while meeting the demands of future generations, guided by a commitment to responsible growth, environmental respect, and sustainability.



LEADERSHIP IS NOT ABOUT POSITION; IT IS ABOUT ACTION

We have been in business for over six decades. What began in 1962 as a small bituminous emulsion unit on the coast of Aspropyrgos - serving the construction of the first Athens-Lamia National Road - marked the beginning of our journey toward growth and expansion in manufacturing a wide range of sealing and insulation products.

Esha is currently the leading manufacturer of bituminous sealing products in Greece, offering over 500 specialized product codes (including bituminous waterproofing membranes, bituminous emulsions, and hybrid solutions for surface protection and sealing). Our portfolio also includes joint sealants, acrylic, epoxy, polyurethane, and polysulfide-based products, as well as modified road bitumen (elastomers, plastomers using recycled tires), bituminous road-building emulsions, bridge-joint sealing materials, and polyurethane thermal insulation boards).

Progress doesn't stop there. With a strong sense of social responsibility toward future generations, the company is committed to developing materials that are more environmentally and human-friendly, contributing to energy conservation and promote sustainable growth.



01

WATERPROOFING

Bituminous Membranes

Elastomeric
Plastomeric
Self-adhesive
Special Applications

Plastic Membranes

PVC
TPO
HDPE

Waterproofing Coatings

Bituminous
Polymer

Joint Sealants

Bituminous
Polymer

Cementitious Products

Bituminous Tiles

02

THERMAL INSULATION - EXTERNAL THERMAL INSULATION

Marsipus SYSTEM

Thermal Insulation Boards

Extruded polystyrene -
Marsipus (XPS)
Expanded polystyrene (EPS)
Polyurethane (PU)

Marsipus TL composite thermal insulation tiles

Full range of ESHA FX external thermal insulation materials

03

GREEN ROOF
SYSTEM
EshaOxygen

Anti-Root Membranes

Protection Membranes

Drainage Sheets

Water-absorbing mineral wool pane

Planting substrate

Planting accessories

04

ROAD BUILDING

Modified Bitumen for Road Building

Road Building Bituminous Emulsions

Sealing in Technical Projects

Sealing of Road-Building Joints

Asphalt Reinforcement Road Repair

Special Products for Road-Building

With more than **500** specialized products, the result of extensive experience and expertise, **Esha** meets all demands in the fields of **DAMP PROOFING, THERMAL INSULATION - THERMAL PROTECTION, ROAD BUILDING** and **"GREEN BUILDINGS"**.

Our production process has been certified as per the **ISO 9000 quality management and ISO 14001 environmental management systems** and our products bear **CE marking**. Recently, we obtained the **EPD** (Environmental Product Declaration) certificate, which contributes to environmental certification systems such as **LEED, BREEAM** etc. that focus on eco-design. Furthermore, all our products are accompanied by certifications from independently recognized laboratories, verifying their properties. Equally significant is our extensive database of application projects in Greece and abroad, which stands as a testament to the exceptional quality and durability of **Esha** products.



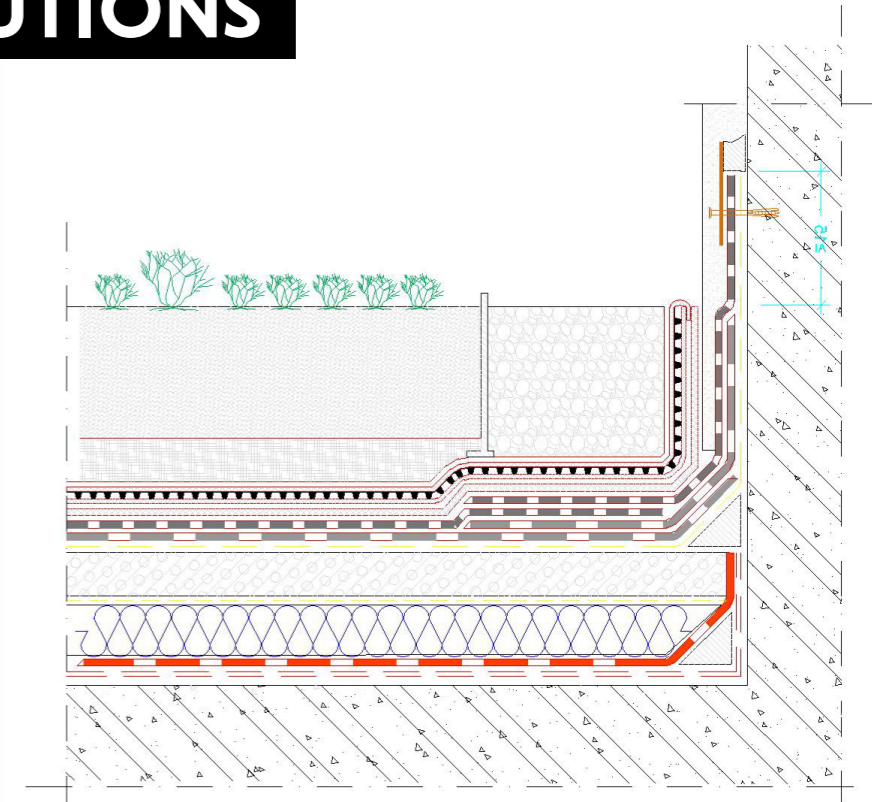
AT Esha

**WE DON'T JUST SELL PRODUCTS,
WE PROVIDE SOLUTIONS**

The company's Sales Department consists of highly qualified engineers from various specialties, bringing extensive experience and professional expertise in both the materials and their recommended application methods.

A Sales Technician will carefully assess your project and recommend the most suitable, well-documented solution, tailored to your specific requirements and budget.

Additionally, we will provide you with the Technical Specifications and all required material certificates, along with ready-to-use Technical Drawings (AutoCAD).



we know how
since 1962

The **Research and Quality Control Department** is at the heart of the company's production process, ensuring full compliance with Greek and international standards in all necessary quality controls of the final product.

For each batch of material produced, all necessary measurements are conducted to verify quality and technical characteristics. Each batch is assigned a unique numerical marking (Lot No.), ensuring all data is accurately recorded in the department's database. This process guarantees both the quality of the final product and the full traceability of each material throughout the production process.

Beyond quality control, the department also focuses on research and development, aiming to develop and produce new products that are more environmentally and human-friendly, adhering to the principles of sustainability and energy efficiency. Notably, materials developed in Esha's laboratories are available both in Greek and international markets include **green roof systems, thermo-reflective roof membranes, cool roof materials, waterproofing membranes suitable for photovoltaic systems, and photocatalytic waterproofing materials.**



TESTING IN ESHA LABS COMPLIES WITH GREEK & EUROPEAN STANDARDS

- | | | | |
|---|--|--|---|
| Ring & Ball test - EN 1427 | Bituminous membrane granules loss test - EN 12039 | Dimensional stability of bituminous membranes - EN 1107-1 | Percentage of bituminous binder for bituminous solutions - EN 1431 |
| Penetration test - EN 1426 | Dimensional characteristics of bituminous membranes - EN 1848-1 | High temperature flow test - EN 1110 | Breaking point according to FRAASS - EN 12593 |
| Membrane flexibility testing at low temperatures - EN1109 | Bituminous membrane defect inspection - EN 1850 | Flash point - Cleveland Open Cup - EN ISO 2592 | Storage stability of road bituminous mixtures - EN 13399 |
| Tensile strength test for bituminous membranes - EN 12311-1 | Waterproofing of bituminous membranes - EN 1928 | Degradation index of bituminous emulsions - EN 13075-1 | Elasticity - Elastic recovery test of bituminous mixtures – according to EN13398 |
| Tear resistance test - EN 12310-2 & ASTM D4073-94 | Static load resistance test of bituminous membranes - EN 12730 | Viscosity of bituminous mixtures Brookfield Rheometer | Homogeneity test of bituminous mixtures – Fluorescence Microscopy |
| Artificial ageing test on bituminous membranes - EN 1297:2004 | Impact resistance test for bituminous membranes - EN 12691 | Viscosity of bituminous emulsions - EN 12846 | |
| Thermal ageing resistance test for bituminous membranes - EN 1296 | Nail shank tear resistance of bituminous membranes for tiled roofs - EN 12310-1 | Percentage of bituminous emulsion binder - EN 1431 | |
| Artificial ageing test on 1mm thick plastic waterproofing materials - EN 1297:2004 | Membrane resistance to root penetration - CEN/TS 14416 | | |

Esha, One Family

"If you want to go fast, go alone."

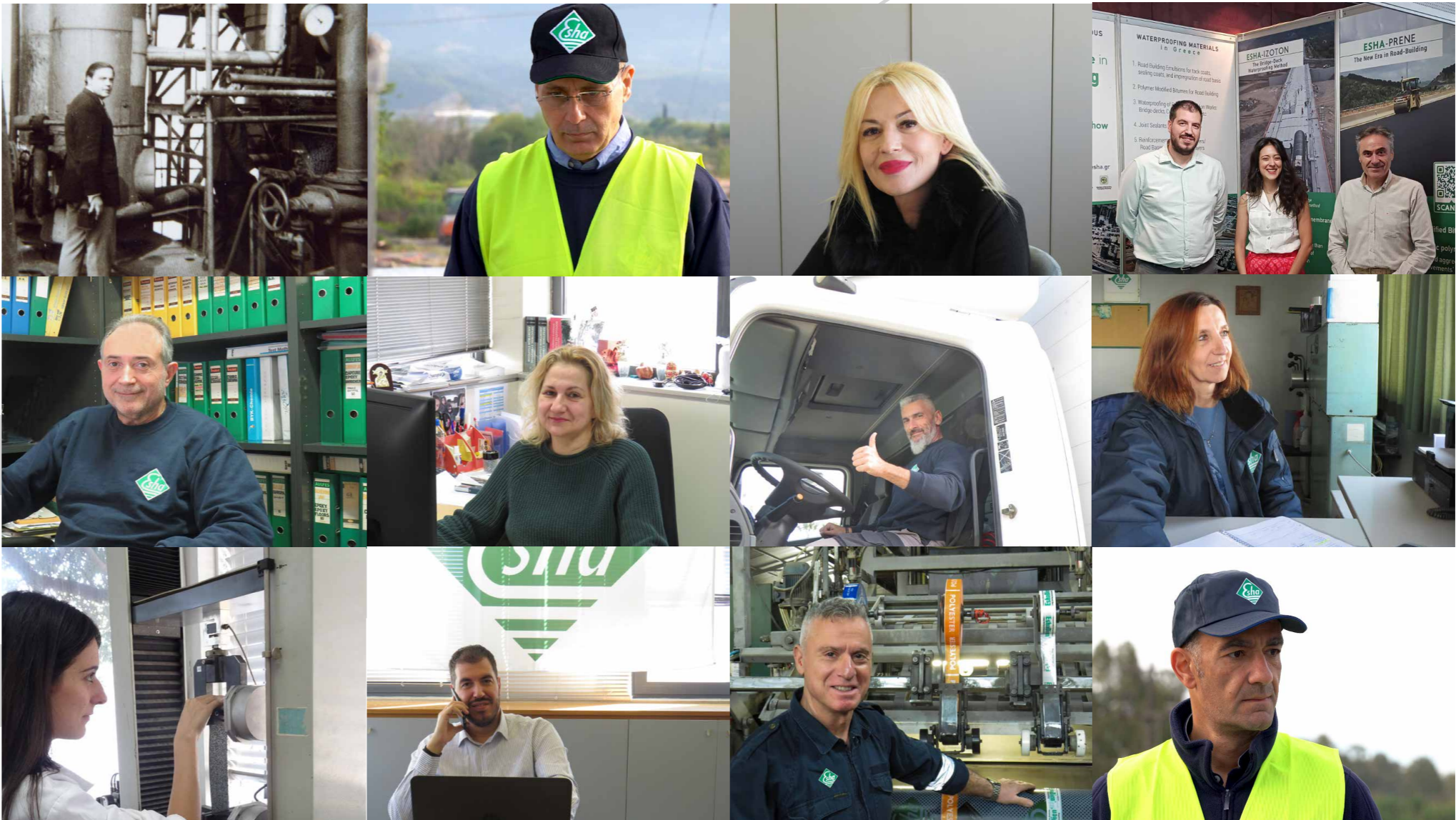
"If you want to go far, go together."

We are **Esha**, a Greek company specializing in waterproofing and sealing products since 1962 and we are proud of our legacy. Over the years, we have remained a family—a close-knit team bound by understanding, appreciation and mutual respect, standing together through challenging times and successes alike.

We stand on strong, unshakable foundations—values and ideals passed down by those who have built and nurtured this company over the decades. Their journey has brought us this far, and we move forward with confidence, knowing that our people are our greatest strength.

Our people are the most valuable asset of the company—the driving force behind our production process, development plans, and our greatest competitive advantage. In an ever-evolving business landscape defined by uncertainty and intense competition, their innovation and expertise fuel our continuous growth and efficiency.

At **Esha** we are committed to fostering a work environment built on safety, collaboration, and camaraderie, where every employee can showcase their talents and strengths. We recognize and reward the efforts of our people, providing opportunities for growth to those who seek and pursue them with passion. Because when our people grow and succeed, so do we!



MATERIALS FOR THE CITIES OF TOMORROW



Throughout our course, we have pioneered the production and distribution of products that meet market demands. To this day, we maintain the same commitment by offering a wide range of high-quality, innovative products that meet the highest demands of our customers.



EshaToPrimer

Eco-friendly, polymer-based bituminous primer, product of new technology, odorless, user-friendly, ensuring **zero VOC's emissions**.



EshaPolyblack

A new, innovative material developed through research in Esha's Research and Quality Control Department. This elastomeric, bitumen-polyurethane, water-based, one-component coating sealant is ideal for sealing and protecting both horizontal and vertical surfaces.

EshaDien Ultra White

Elastomeric bituminous membrane with a **triple-coated polymer film top surface**, fully white, utilizing hybrid technology.

EshaFin Sandwich

EshaFin Sandwich is a durable bituminous membrane with double reinforcement, offering enhanced mechanical strength. It also serves as a vapor barrier and a barrier against radon and electromagnetic radiation.

EshaDien GEO

Bituminous membrane with a top coating and integrated polyester **geotextile protection (190g/m²)**, suitable for sealing in **high-load** overhead applications and **underground structures**.



EshaGum FR

Bituminous sealing membrane with high resistance to flame propagation. **Featuring SP polyester reinforcement with special fire-retardant additives to slow the propagation of flames**, ideal for damp-proofing applications in industrial buildings, university campuses, schools and more.

EshaThioseal 200E

High-performance elastomeric **polysulfide** horizontal joint, two-component (A+B) sealant, with exceptional resistance to oil, kerosene and more. Through polymerization, it forms an elastic sealant capable of withstanding joint deformations of over 25% at temperatures up to 60°C. It offers excellent adhesion to all stable building materials and is used for sealing horizontal expansion joints in various stable building elements, such as concrete and metal. Compliant with the American Federal Specification SS-S-200E, it has been the preferred solution for sealing joints in aircraft runways, parking areas and refueling zones in numerous projects across Greece.



EshaVent

Self-adhesive bituminous membrane with polyester reinforcement, undercoated with perforated aluminum foil or glass fiber felt, designed to create the first sealing layer, while also providing ventilation. **Three functions in one product** (Sealing, Ventilation and Substrate Protection).

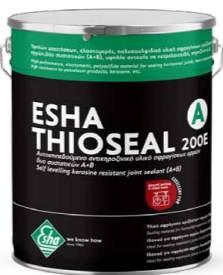


Eshastick 3000X

Self-adhesive bituminous waterproofing membrane with a **CROSS LINKED HDPE top finish** for easy and quick application. It acts as a radon and methane gas barrier, with direct bonding to prefabricated polyurethane or extruded polystyrene insulation boards. Ideal for green roofs, flower stands and vertical walls, providing damp-proofing and anti-root protection in accordance with DIN4062/UNE53420.

Esha ANTI-N0x

Innovative, eco-friendly bituminous roofing membrane that combines multiple technologies for sealing and atmospheric improvement, delivering direct and positive environmental benefits. The final surface of the **Esha Anti-N0x** membrane is coated with a special inert mineral, enhanced with titanium. This not only provides self-protection for the membrane but also acts as a catalyst for neutralizing harmful nitrogen oxides, which are primarily responsible for acid rain, photochemical smog, and the reduction of tropospheric ozone in both urban and industrial environments.



GREEN IS THE COLOUR
OF OUR WORLD

ESHA GREEN SOLUTIONS

We envision our cities clean and "green", with buildings that:

- Are protected from cold, heat, water, noise pollution.
- Reduce emissions of carbon dioxide CO₂
- Capture rainwater and prevent street flooding.
- Save energy & money
- Reduce the urban island effect
- Improve the atmospheric quality

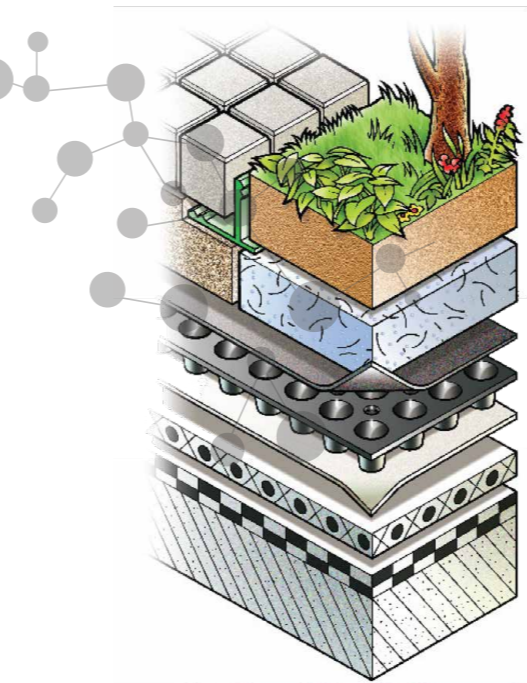
At Esha, we are committed to developing cutting-edge systems that contribute to the creation of "Green Cities".

EshaOxygen

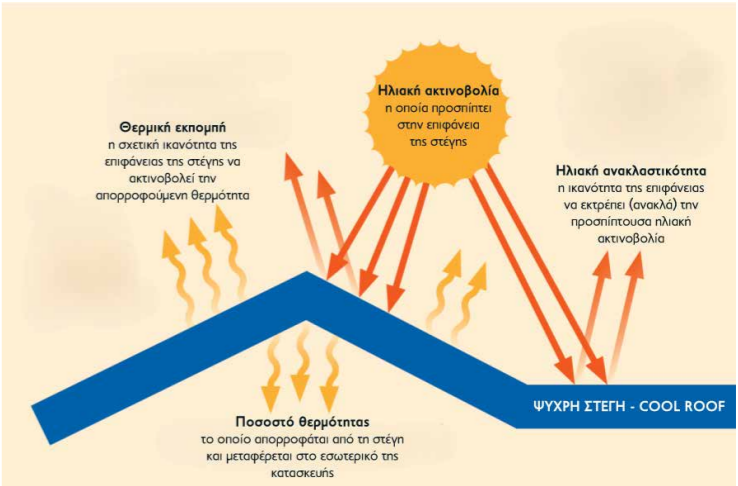
Leading technology in Green Roofs

Esha, the Greek company renowned for its commitment to high-quality sealing solutions, has partnered with Noph-adrain, the Dutch leader in innovative drainage systems, to develop and market EshaOxygen—a planted roof system with unique features:

- Complete waterproofing with added root protection
- Exceptional drainage and water retention
- Ideal substrate for healthy plant growth
- System made with lightweight materials and exceptional compression resistance
- Simple application in just a few steps
- Variety of accessories for flexibility in garden styling
- System designed according to German FLL specifications
- All system materials are CE certified



EshaOxygen "green roof" system material layering



COOL ROOF

Cool Roof is a technology that has significantly advanced in recent years, contributing to the thermal protection of buildings and reducing energy consumption. By applying cooling materials to the roof of a building, in addition to providing waterproofing, a significant percentage of solar radiation is reflected, keeping the surface cooler than conventional roofs fully exposed to direct sunlight. Esha offers a wide range of cooling materials, including coatings and bituminous membranes, that provide dual protection against humidity and solar radiation.



PIONEERS IN THE PRODUCTION
OF BITUMINOUS WATERPROOFING
MEMBRANES

With over 120 different bituminous waterproofing membrane codes, Esha is a market leader in Greece.

ESHA BITUMINOUS WATERPROOFING MEMBRANE PRODUCT RANGE

EshaDien® ELASTOMERIC (SBS) BITUMINOUS WATERPROOFING MEMBRANES (-20°C)*

REINFORCEMENT	TOP FINISH	WEIGHT-kg/m²
High-Dimensional Stability Polyester	Polyethylene	4.0 - 5.0
High-Dimensional Stability Polyester	Green-gray mineral granules	4.0 - 4.5 - 5.0 - 6.0
High-Dimensional Stability Polyester	White mineral granules	4.0 - 4.5 - 5.0 - 6.0
High-Dimensional Stability Polyester	60m aluminum - highly reflective	3.5 - 4.0
Fibre Glass Mat - Aluminium Sheet - Sandwich	Polyethylene	3.0
SP Polyester	Pure white polymer sheet with an SRI>87	4.0

EshaElastan S® ELASTOMERIC (SBS) BITUMINOUS WATERPROOFING MEMBRANES (-20°C)

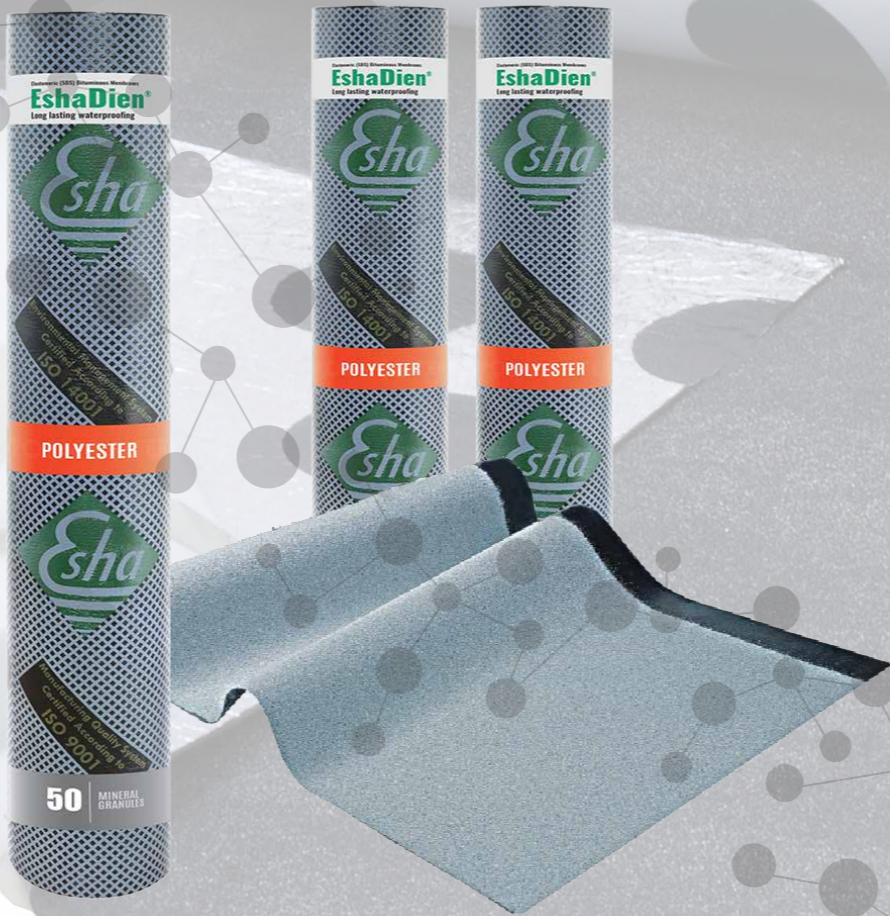
REINFORCEMENT	TOP FINISH	WEIGHT-kg/m²
Polyester - Mesh combination	Polyethylene	4.0
Polyester - Mesh combination	Green-gray mineral granules	4.5 - 5.0 - 6.0
Polyester - Mesh combination	White mineral granules	4.0 - 4.5 - 5.0 - 6.0

EshaElastan® ELASTOMERIC (SBS) BITUMINOUS WATERPROOFING MEMBRANES (-15°C)

REINFORCEMENT	TOP FINISH	WEIGHT-kg/m²
High-Dimensional Stability Polyester	Polyethylene	3.0 - 4.0
High-Dimensional Stability Polyester	Green-gray mineral granules	4.0 - 4.5 - 5.0 - 6.0
High-Dimensional Stability Polyester	White mineral granules	4.0 - 4.5 - 5.0 - 6.0
High-Dimensional Stability Polyester	60m aluminum, highly reflective, with an SRI > 95.	3.5

EshaFin® ELASTOMERIC (SBS) BITUMINOUS WATERPROOFING MEMBRANES (-10°C)

REINFORCEMENT	TOP FINISH	WEIGHT-kg/m²
Polyester - Mesh combination	Polyethylene	3.0 - 4.0 - 5.0
Polyester - Mesh combination	Green-gray mineral granules	4.0 - 4.5 - 5.0 - 6.0
Polyester - Mesh combination	White mineral granules	4.0 - 4.5 - 5.0 - 6.0
Polyester - Mesh combination	60m aluminum - highly reflective	3.5
Polyester - Mesh combination	SRI > 95	4.0
Fibre Glass Mat - Aluminium Sheet - Sandwich	Polyethylene	3.0



ESHA BITUMINOUS WATERPROOFING MEMBRANE PRODUCT RANGE

EshaGum® PLASTOMERIC (APP) BITUMINOUS WATERPROOFING MEMBRANES (-10°C)

REINFORCEMENT	TOP FINISH	WEIGHT-kg/m²
High-Dimensional Stability Polyester	Polyethylene	4.0
High-Dimensional Stability Polyester	Green-gray mineral granules	4.0 - 4.5 - 5.0
High-Dimensional Stability Polyester	White mineral granules	4.0 - 4.5 - 5.0
SP250 Polyester	Polyethylene	4.5

EshaProof® PLASTOMERIC (APP) BITUMINOUS WATERPROOFING MEMBRANES (-7°C)

REINFORCEMENT	TOP FINISH	WEIGHT-kg/m²
Polyester	Polyethylene	4.0 - 5.0
Polyester	Green-gray mineral granules	4.0 - 4.5 - 5.0 - 6.0
Polyester	White mineral granules	4.0 - 4.5 - 5.0 - 6.0
SP Polyester	60m aluminum - highly reflective	3.5 - 4.0

EshaDuro® PLASTOMERIC (APP) BITUMINUS WATERPROOFING MEMBRANES (-5°C)

REINFORCEMENT	TOP FINISH	WEIGHT-kg/m²
Polyester - Mesh combination	Polyethylene	3.0 - 4.0
Polyester - Mesh combination	Green-gray mineral granules	4.0 - 4.5 - 5.0
Polyester - Mesh combination	White mineral granules	4.0 - 4.5 - 5.0
Polyester - Mesh combination	Red-brown mineral granules	4.0

EshaStick® SELF-ADHESIVE BITUMINOUS WATERPROOFING MEMBRANES (-25°C)

REINFORCEMENT	TOP FINISH	WEIGHT-kg/m²
Polyester - Mesh combination	Polyethylene	3.0 - 4.0
Polyester - Mesh combination	Green-gray mineral granules	4.0 - 4.5 - 5.0
Polyester - Mesh combination	White mineral granules	4.0 - 4.5 - 5.0
Polyester - Mesh combination	Red-brown mineral granules	4.0

SPECIAL SELF-ADHESIVE BITUMINOUS WATERPROOFING MEMBRANES (-20°C)

REINFORCEMENT	TOP FINISH	WEIGHT-kg/m²
Polyester - Mesh combination	Polyethylene	3.0 - 4.0
Polyester - Mesh combination	Green-gray mineral granules	4.0 - 4.5 - 5.0
Polyester - Mesh combination	White mineral granules	4.0 - 4.5 - 5.0
Polyester - Mesh combination	Red-brown mineral granules	4.0

EshaRoof® SELF-ADHESIVE BITUMINOUS WATERPROOFING MEMBRANES (-25°C)

REINFORCEMENT	TOP FINISH	WEIGHT-kg/m²
Polyester	Polyethylene	0.8 - 0.85
Polyester - Mesh combination	Polyethylene	0.8 - 0.85
Polyester - Mesh combination	Quartz sand	1.0 - 1.1
Polyester - Mesh combination	PP Geotextile	0.8 - 0.85
Polyester fabric	Aluminium sheet	1.8
Breathable synthetic membrane		0.09 - 0.150 - 0.170
Air Bubble Film	Aluminium sheet	thickness 4.35 - 7.50 (±10%)

*The value refers to the flexibility test (EN 1109) of the bituminous membrane at the specified temperature.

AT Esha

YOU ARE NOT JUST A **CUSTOMER**

You are **"The Customer"** - our company's most valuable asset.

Together, we cultivate a relationship built on mutual trust and honesty, ensuring shared success and lasting benefits.

Our goal is to always stand by your side, understanding your challenges and providing solutions that enhance your sales and profitability.

We focus on long-term partnerships (we are especially proud to have had stable partners for decades), as we believe this approach maximizes the benefits of our collaboration.

We maintain open communication channels and are committed to continuous improvement, providing products and services that fully meet the needs of your clientele.

With Esha by your side, you have a reliable partner committed to helping you excel in an ever-evolving and highly competitive market.

PARTNERSHIP WITH EXCLUSIVE BENEFITS

- Over 40 codes of bituminous waterproofing membranes in stock, readily available
- All the necessary documentation for each product (TDS, DOP, MSDS, CE, EPD)
- Detailed instructions for material application
- Technical Drawings (Autocad)
- Fully updated website
- Production of specialized materials upon request.
- Exclusive offers
- And finally, maintaining stable prices, to the extent possible.



we know how
since 1962

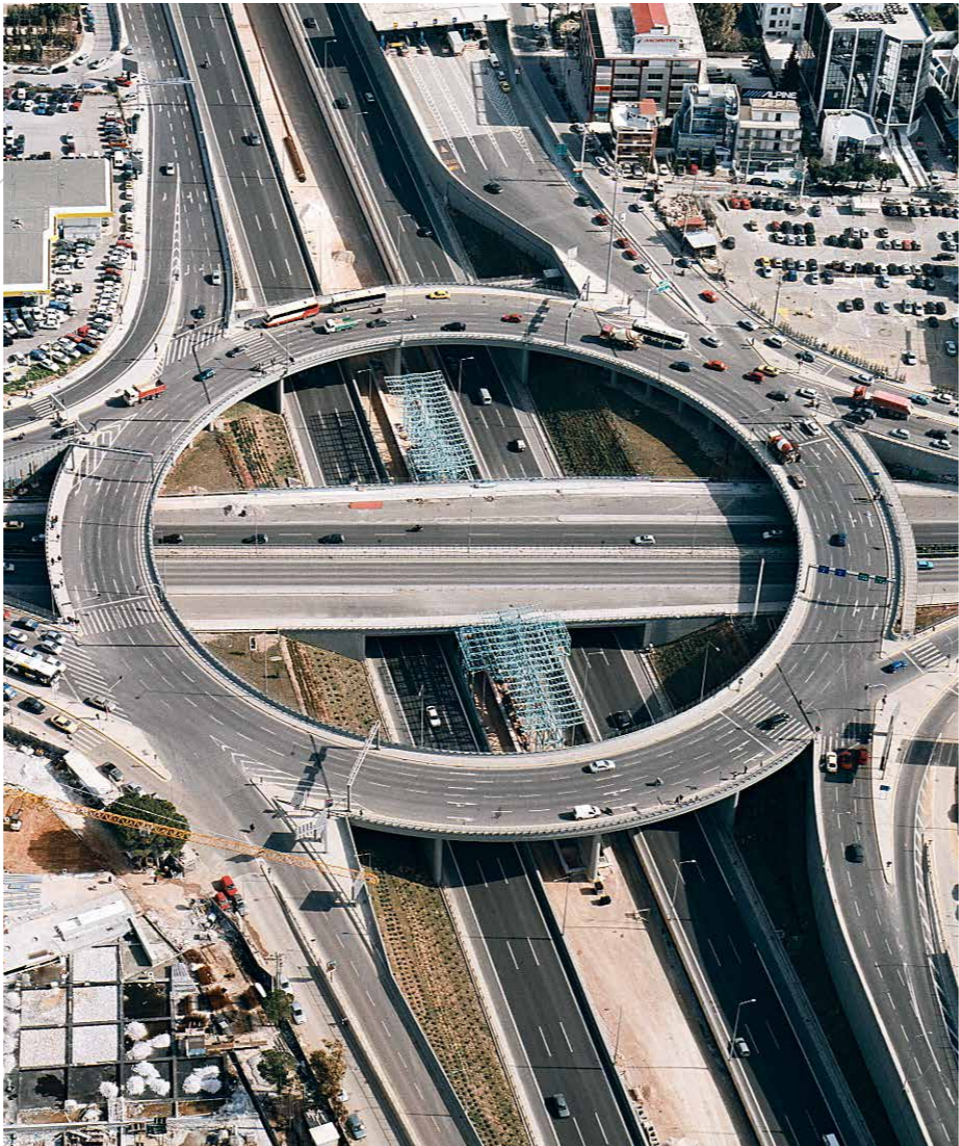
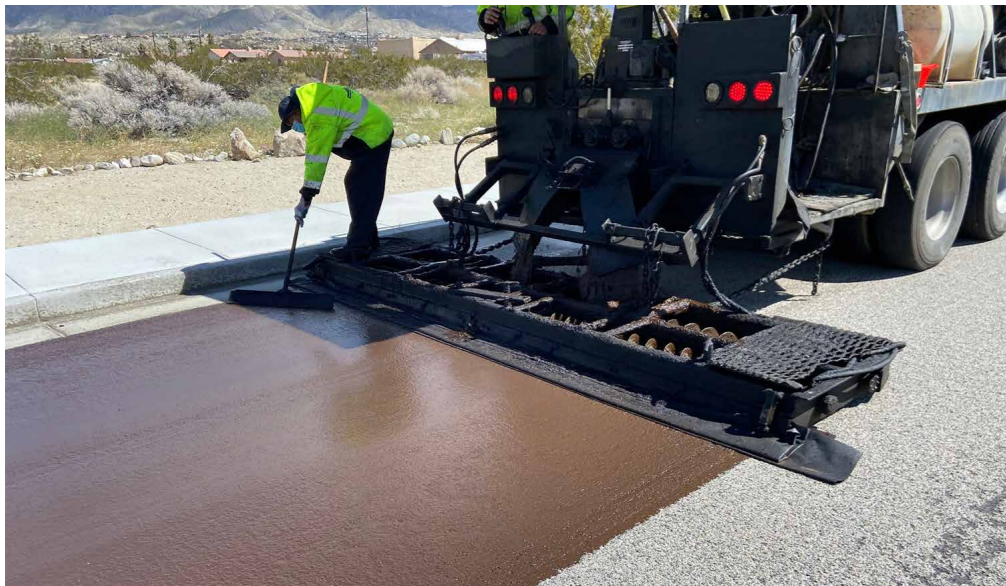
STRENGTH & EXPERTISE
IN ROAD BUILDING

Road Building Emulsions - Modified Asphalt for Road Building - Sealing in Technical Projects

Since its beginning in Greece in 1962, **Esha** has been a pioneer in the production of Road-Building Emulsions for bonding layers, precoating & road resurfacing.

Additionally, **Esha** was among the first companies to recognize the need for high-performance, high-strength road pavements. In response, Esha developed modified asphalt, enabling the construction of pavements with enhanced performance, including anti-slip properties, resistance to deformation, cracking and temperature fluctuations, as well as durability against aggregate abrasion and rutting. These pavements also offer a smoother rolling surface, easier maintenance, enhanced safety, and extended lifespan. A key reference project is the initial paving of Attica Road, followed by its maintenance 20 years later - once again using Esha products.

The range of solutions offered is complemented by a range of specialised products for the waterproofing of bridge decks, culverts, retaining walls, manholes & underground structures (Cut & Cover).



CATEGORIES OF ROAD BUILDING PRODUCTS

1. ROAD BUILDING BITUMINOUS EMULSIONS

- KE_1 Bituminous Emulsion (Adhesive)
- KE_2 Bituminous Emulsion (Sealing Coatings)
- KE_5 Bituminous Emulsion (Pre-coating)
- KE_2 Bituminous Emulsion (Adhesive, Slope hydro-seeding)
- PME Elastomeric Bituminous Emulsion, slurry sealing

2. MODIFIED PAVEMENT ASPHALT

- EshaPrene
- EshaPrene - XS
- Esha - Evaplas
- Esha - Modibit
- Esha - EcoElast

3. WATERPROOFING IN TECHNICAL PROJECTS: BRIDGE DECKS, CULVERTS, RETAINING WALLS, MANHOLES & UNDERGROUND WORKS (CUT & COVER)

- Esha Izoton
- EshaProof SP
- EshaCumSP
- R 2.5 or Atlas Bitustop V 2.5 Q-Q
- EshaStick
- Esha Izotex
- 1.5mm/2.0mm PVC membrane

4. JOINT SEALANTS

- EshaSealer No.1
- EshaSealer No.164
- EshaPolyseal
- EshaThioseal
- EshaPolyphalt
- EshaThioseal 200E
- EshaLas

5. REINFORCEMENT OF BITUMINOUS LAYERS / ROAD PAVEMENTS AND SEPARATION LAYERS

- GlassMAt 100KN
- GeoGrids
- PES GeoTextiles
- PP GeoTextiles

6. DRAINAGE OF PAVEMENTS & TECHNICAL ROAD WORKS

- EshaDrain 400/500)
- EshaDrain 500 -Geo

7. ROAD REPAIR

- EshaEpogran
- EshaFill

8. SPECIAL ROAD BUILDING PRODUCTS

- EshaRoadLift
- EshaColor

PROJECTS & APPLICATIONS

WE ARE PART OF THE
MOST IMPORTANT PROJECTS

For over six decades, Esha products have been trusted for the reliable sealing of numerous public and private projects, both large and small, across Greece. Their proven long-term performance has earned the confidence of designers, architects, builders, and leading engineering companies.



STAVROS NIARCHOS FOUNDATION



HELLINIKON PROJECT



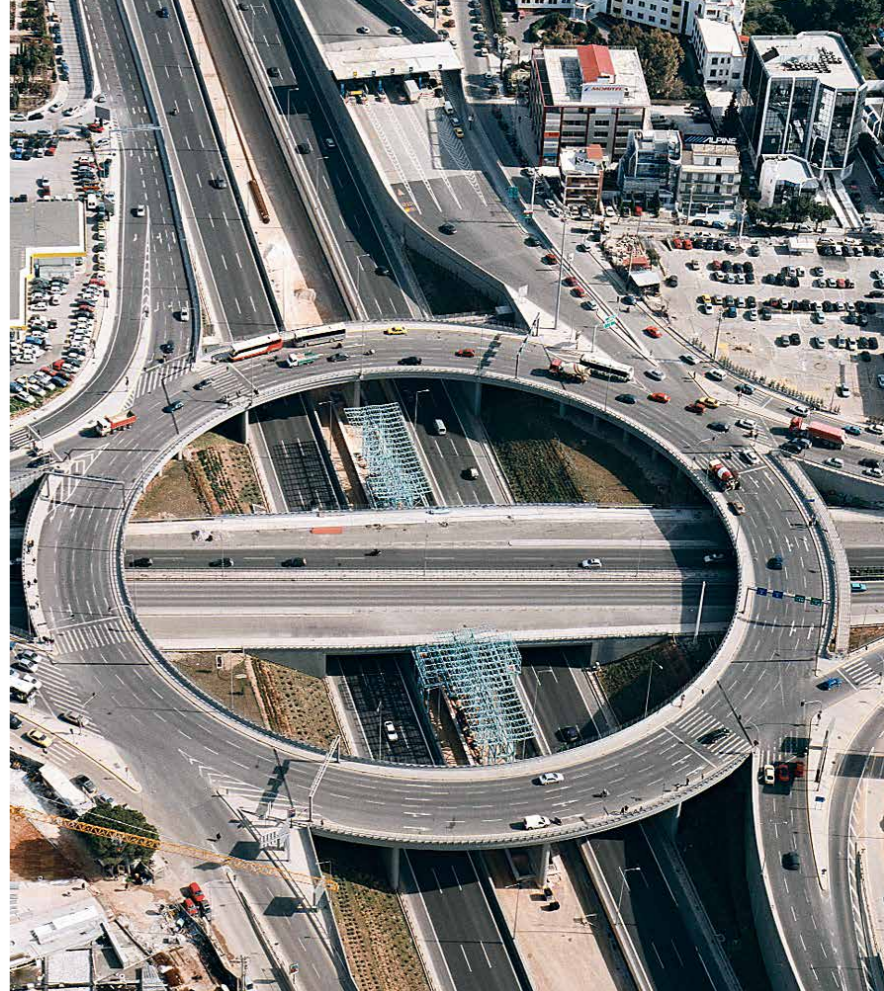
NEW PWC OFFICE BUILDING



"EL. VENIZELOS" AIRPORT IN ATHENS



AYIA NAPA, CYPRUS



ATTICA ROAD



NEW AIRPORT IN AVLONA - ALBANIA



EVINOS BRIDGE



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ATHENS | THESSALONIKI | SOFIA (BG)