



MARISEAL • SYSTEM[®]

LIQUID-APPLIED POLYURETHANE WATERPROOFING SYSTEM

Maris Polymers[®]
POLYURETHANE SYSTEMS

A flat roof is constantly exposed to humidity, ultraviolet degradation, weathering, acid rain attack, mechanical wear and ongoing movement stresses, due to temperature changes. As a result, most flat roofs are leaking and require renovation.

The professional, long lasting, waterproofing solution is the **MARISEAL•SYSTEM**

The **MARISEAL•SYSTEM** is a group of coatings based on Polyurethane resins, which used in combination, creates a seamless membrane on the flat roof, that protects the building structure reliably and on a long term basis, even under the most difficult conditions.



Maris Polymers[®]
POLYURETHANE SYSTEMS



Professional waterproofing applicators in over 45 countries, use the **MARISEAL•SYSTEM** for demanding waterproofing. The reasons are:

- Simple application.
- When applied, forms a seamless membrane, without joints or leak possibilities.
- Resistance to water:
- Crack-bridging up to 2mm, even at -10°C.
- Maintenance of its mechanical properties, over a temperature span of -30°C to +90°C.
- Provides water vapor permeability.
- Provides full surface adhesion.
- Provides sun reflectivity, contributing to thermoinsulation.
- Provides anti-root properties.
- The waterproofed surface can be used for medium to heavy pedestrian traffic, depending on the MARISEAL SYSTEM top-coat.
- Resistant to detergents, oils and common chemicals.
- Easy local repair; if the membrane is mechanically damaged.
- Low cost.



uses

The **MARISEAL•SYSTEM** can be used on:

- Roofs, Balconies and Terraces
- Wet areas
- Water tanks
- Flowerbeds
- Public Walkways
- Foundations, etc.



etc.

The MARISEAL SYSTEM consists of

MARISEAL PRIMERS

MARISEAL 710  

The MARISEAL 710 is a fast curing, one-component polyurethane primer; used to prepare absorbent surfaces like concrete, cement screed, mortar, wood, etc.

MARISEAL AQUA PRIMER   

The MARISEAL AQUA PRIMER is a two-component epoxy waterbased primer; used to prepare the majority of construction surfaces including absorbent and non-absorbent surfaces like bitumen-felts, ceramic tiles, moist concrete, etc.

MARISEAL WATERPROOFING COATINGS

MARISEAL 250  

The MARISEAL 250 is a premium, one-component, permanent elastic, liquid applied polyurethane coating, that cures to a seamless, highly elastic waterproofing membrane. Used on most waterproofing applications, as roofs, balconies, terraces, etc.

MARISEAL DETAIL   

The MARISEAL DETAIL is a one-component, permanent elastic, liquid applied polyurethane coating, reinforced by fibers. It is used to waterproof details on the roof like exhaust pipes, light domes, etc.

MARISEAL 270  

The MARISEAL 270 is a one-component, permanent elastic, liquid applied polyurethane coating, that cures to a seamless, elastic waterproofing membrane. Used on wet areas, foundations, balconies (below tiles), etc.

MARISEAL 300   

The MARISEAL 300 is a two-component, solvent free, liquid-applied, permanent elastic polyurethane coating that cures to a seamless, elastic waterproofing membrane. Used in potable water tanks, water channels, sewage tanks, etc.



MARISEAL TOP COATS

MARISEAL 400  

The MARISEAL 400 is a pigmented, colorfast, UV-stable, permanent elastic, one-component aliphatic polyurethane coating, used as a top-coat over exposed polyurethane waterproofing coatings. Used on roofs and terraces where a medium pedestrian traffic is expected.

MARISEAL 420  

The MARISEAL 420 is a pigmented, colorfast, UV-stable, permanent hard-elastic, one-component aliphatic polyurethane coating, used as a top-coat over exposed polyurethane waterproofing coatings. Used on public walkways and areas where a heavy pedestrian traffic is expected.

MARITRANS  

The MARITRANS is a transparent, UV-stable, permanent hard-elastic, one-component aliphatic polyurethane coating, used as a sealer over decorative polyurethane waterproofing coatings. Used on balconies and terraces where a medium pedestrian traffic is expected. The MARITRANS can be also used as a transparent coating to waterproof ceramic tiles surfaces.



MARISEAL SYSTEM AUXILIARY PRODUCTS

MARISEAL FABRIC

Polyester, non-wooven, reinforcing geotextile. Used for reinforcing roofing details or the entire surface.

MARISEAL KATALYSATOR 

Accelerator for use with the MARISEAL 250 and MARISEAL 270.

MARIFLEX PU30 

Low modulus Polyurethane sealant used to seal joints and cracks.

application tools



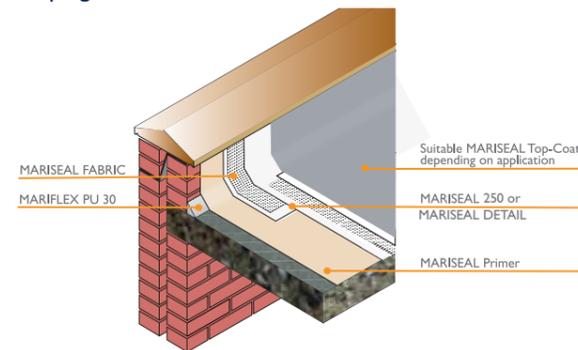
No Problem with Details

All the waterproofing coatings of the **MARISEAL SYSTEM** cure to form permanently elastic, seamless membranes providing waterproofing on a long-term basis, even to the most difficult and problematic details.

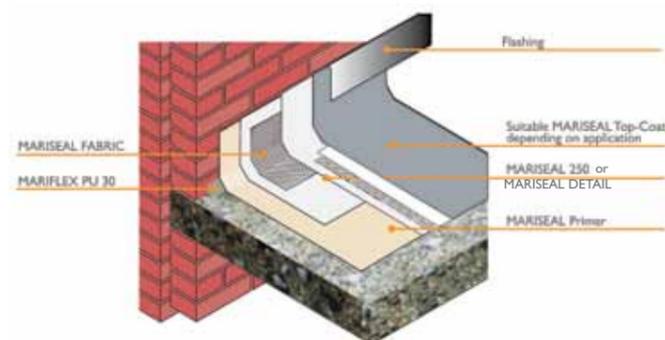
While other waterproofing membranes or systems fail at these difficult detail areas, the **MARISEAL SYSTEM** has proven itself to perform, even in the most extreme climatic zones on the planet.

The **MARISEAL SYSTEM** creates a seamless membrane with full surface adhesion to the surface, so no additional mechanical fixings or additional flashings are required.

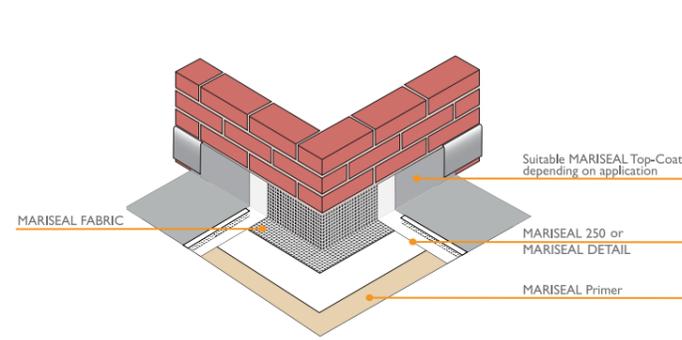
Coping Detail



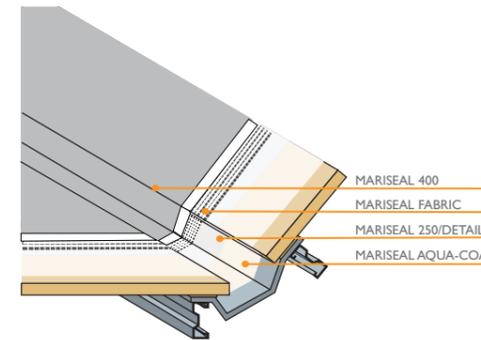
Abutment Detail



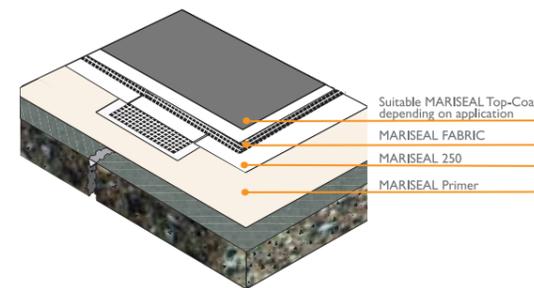
External Corner Abutment Detail



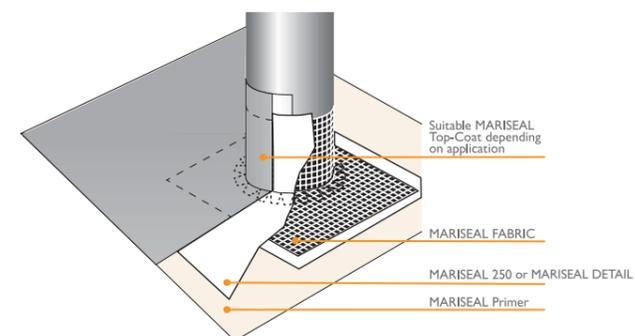
Gutter Detail



Crack Detail



Pipe Detail



Waterproofing of Roofs, Balconies and Terraces

MARISEAL-250

The **MARISEAL-250** is the backbone of the **MARISEAL SYSTEM** functioning as the main elastic and waterproofing membrane of the system.

The **MARISEAL-250** is a one-component, liquid-applied, cold applied and cold curing, polyurethane coating that cures to a seamless, highly permanent elastic waterproofing membrane.

The **MARISEAL-250** is used on most waterproofing applications as:

- ✦ ROOFS
- ✦ BALCONIES
- ✦ TERRACES
- ✦ WET AREAS
- ✦ PUBLIC WALKWAYS
- ✦ FLOWERBEDS
- ✦ POLYURETHANE FOAM PROTECTION



The **MARISEAL-250** has been tested by the German State Testing Institute for Construction Materials MPA-Braunschweig, according the European Union Directive for liquid-applied roof waterproofing ETAG 005, and was found conforming.

The **MARISEAL-250** was tested by the French Testing Institute for Construction Materials BUREAU-VERITAS according the French Norms and was found conforming.

The **MARISEAL-250** was certified by the German State Intitute for Construction Techniques DIBt-Berlin, with the European Technical Approval (ETA) and with the CE mark and certification.



LEVELS OF USE CATEGORIES ACCORDING ETAG 005:

Working Life:	W2	10 years minimum
Climate zone:	M and S	North and South Europe
Imposed loads:	PI to P3	Up to high pedestrian traffic
Dachneigung:	SI bis S4	Roof slope from <math><5^{\circ}</math> to $>30^{\circ}$
Lowest surface temperature:	TL3	-20° C
Highest surface temperature:	TH9	90° C
Reaction to fire:	Class E	EN 13501, DIN 4102-I und -7
Resistant to wind loads:	>50 kPa	Resistant to all wind loads

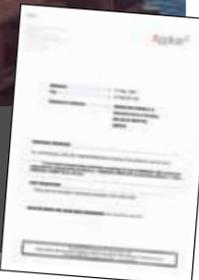


The **MARISEAL-250** was additionally tested and approved according:
 DIN 1928, which classifies it as a waterproofing coating.
 DIN 4102 part I, which classifies it as a B2 fire rating construction material.
 DIN 4102 part 7, which classifies it as a surface coating resistant to flying sparks and radiating heat.
 The **MARISEAL-250** has also been tested and certified in many countries around the world according to local and national regulations and norms.



Root Resistance for Waterproofing of Green Roofs

The **MARISEAL-250** was tested according EN 53420 which classifies it as a root-resistant coating, suitable to be used in green roofs, flowerbeds and planters.



Waterproofing of Wet Areas & Foundations

MARISEAL•270

The **MARISEAL•270** is the elastic and waterproofing coating of the system for concealed areas and below ground applications.

The **MARISEAL•270** is a one-component, liquid-applied, cold applied and cold curing, polyurethane coating that cures to a seamless, permanent elastic waterproofing membrane.

The **MARISEAL•270** is used on waterproofing applications as:

- ✦ WET AREAS (under tile)
- ✦ FOUNDATIONS
- ✦ RETAINING WALLS, etc

The **MARISEAL•270** was specially developed to meet the economical demands of today's construction industry, by providing the highest product quality matched with a very interesting pricing.



Waterproofing of potable Water Tanks

MARISEAL•300

The **MARISEAL•300** is the elastic and waterproofing coating of the system for potable water tanks, water channels and sewage tanks.

The **MARISEAL•300** is a two-component, odourless, solvent-free, liquid-applied, polyurethane coating that cures to a seamless, permanent elastic waterproofing membrane.

The **MARISEAL•300** is used on waterproofing applications as:

- ✦ WATER TANKS
- ✦ WATER CHANNELS
- ✦ SEWAGE TANKS, etc

The **MARISEAL•300** is certified for direct and permanent contact with potable (drinking) water.



Detail Waterproofing

MARISEAL•DETAIL

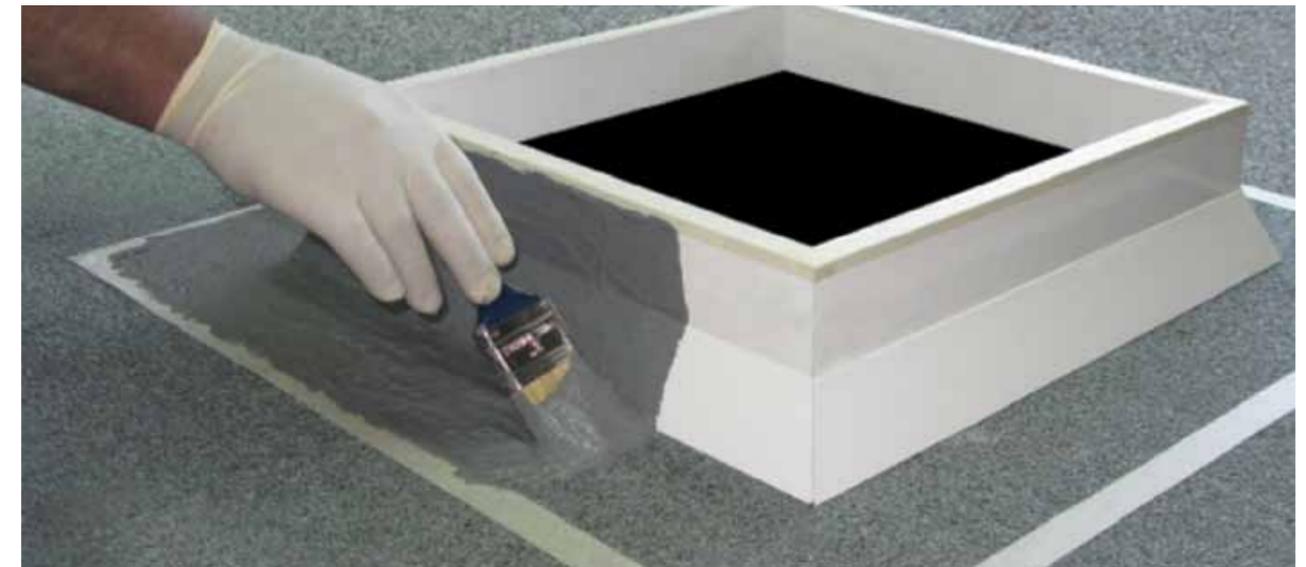
The **MARISEAL•DETAIL** is a liquid-applied, thixotropic, permanent elastic, fiber-reinforced, one component polyurethane coating used for long-lasting waterproofing of complex roofing details and connections.

The **MARISEAL•DETAIL** is mainly used to waterproof details like:

- ✦ PIPES
- ✦ FLASHINGS AND 90° ANGLES
- ✦ LIGHTDOMES
- ✦ CHIMNEYS
- ✦ PHOTOVOLTAIC SYSTEMS
- ✦ WALL-FLOOR CONNECTIONS
- ✦ GUTTERS, etc.



By using the **MARISEAL•DETAIL** all complex roof details are quickly and securely waterproofed. MARIS POLYMERS, with over 60 years combined experience in developing polyurethane systems, have formulated the to meet modern construction **MARISEAL•DETAIL** demands.



Top Coat for Roofs, Balconies and Terraces

MARISEAL•400[®]

For perfect waterproofing as well as optimum optical result, the **MARISEAL•400** top-coat is applied over the main **MARISEAL** waterproofing membrane, to give a decorative and color-stable finish.

The **MARISEAL•400** is an elastic, pigmented, color stable, aliphatic polyurethane top-coat that is applied over the main waterproofing membrane, providing a glossy, decorative and easy-to-clean surface.

The **MARISEAL•400** is color stable, UV-stable and weather resistant.

It has been tested and certified by the German State Institute Materialpruefanstalt MPA-Braunschweig, as a non-yellowing, color stable and non-chalking coating.



Top Coat for Public Pedestrian Areas

MARISEAL•420[®]

The **MARISEAL SYSTEM**, can be applied on surfaces that require a wear resistant and abrasion resistant finish, to withstand heavy pedestrian traffic conditions, as public pedestrian walkways, stadiums, etc.

This is achieved by using the **MARISEAL•420** over the main **MARISEAL** waterproofing membrane.

The **MARISEAL•420** is a hard-elastic, pigmented color stable, aliphatic polyurethane top-coat that is applied over the main waterproofing membrane, providing a wear resistant finish that can withstand heavy pedestrian and light vehicle traffic conditions.

The use of the **MARISEAL•420** results in an abrasion resistant, glossy and easy-to-clean surface which is color stable, UV-stable and free of chalking.





Surface Preparation

Cracks are filled with the MARIFLEX PU30 joint-sealant (step 1). The sealed crack is then covered with the MARISEAL waterproofing coating, and then reinforced with a piece of MARISEAL FABRIC (step 2). The rest of the surface is then primed with the appropriate MARISEAL primer (step 3), depending on the substrate.



Waterproofing of Critical Areas

Critical areas, such as wall-floor connections, pipe outlets, chimneys, siphons etc. must first be waterproofed with the MARISEAL waterproofing coating and then reinforced with the MARISEAL FABRIC. The MARISEAL FABRIC is rolled over the still wet waterproofing coating and pressed in to soak (step 4, 5). Enough MARISEAL coating is then applied until full saturation of the fabric (step 6).



Surface Waterproofing

The MARISEAL waterproofing coating is being applied on the prepared surface (step 7). The MARISEAL FABRIC is applied as previously described (step 8, 9, 10).



Top-coat application

After curing of the waterproofing membrane, the appropriate MARISEAL top-coat is being applied on the entire surface (step 11).

AUTOMOTIVE

VOLKSWAGEN
VOLKSWAGEN, WOLFSBURG
VOLKSWAGEN, ZWICKAU
AUDI
BMW
CITROEN
DAEWOO
FIAT
HONDA
LADA
ABU DHABI FORMULA 1 TRACK
MAZDA
MERCEDES-BENZ
NISSAN
ROVER
CTR CITROEN PLAZA
DUBAI MOTOR CITY
AUTOSTRADA, MESSINA SICILY

COMPUTERS AND ELECTRONICS

AEG
INTEL MICRO PROCESSORS
DATA ELECTRONICS
INTRACOM
LOGIC DATA
GENERAL BATTERIES
NETCOM
PILUX

PETROL, CHEMICAL AND HEAVY INDUSTRY

EKO
ESSO
BAYER
ELF
KRUPP
DOW
MGF
ALUMIL
EXPO-METAL
ALU-NORF
ALU-SUISSE
KONTI
ELFICO
GASPROM HEAD OFFICE
MELKO PETROLIUM
RUSSIAN BELOGIARSKA NUCLEAR STATION
ACP CHEMICAL

SUPER MARKETS

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BAUHAUS
STANNES
AB-BASILOPOULOS
MARINOPOULOS
METRO
TRESKO
IDEA STORES

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IKEA
DROMEAS
CHAMILOS
METRO
KYRIAZIS
FILIPOPOULOS

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LETSOS
SEA FARM IONION
OLYMPUS SEA FARM

FREEZERS

ARCTIKI
GROBAL INT.
THERMOVENT,

FOOD INDUSTRY

COCA COLA
PEPSI
SOGAT, SUGAR PROCESSING
KATOGLI WINES
BOUTARIS, WINES
HBI, FRESH JUICES
ARACHTHOS, FRESH JUICES
BOSINAKIS, BAKERY PRODUCTS
KARAMOLEGOS, BAKERY PRODUCTS
BLUE BELL, FROZEN FOODS
KORONA, PASTA
FLOCA, SWEETS
BEKA, MEAT PROCESSING
AFRICOFFEE, COFFEE
HELLAS CAN, CANNED FOODS
AEGEAN MUSHROOMS
ELPA, OLIVE OIL
BEF, SAUCES
SILIGRADO, MILK PROCESSING

HOTELS AND TOURISTIC

HILTON HOTEL
INTERCONTINENTAL HOTEL
ORIENTAL MANDARIN HOTEL
MARRIOTT HOTEL
ATLANTIS HOTEL AT THE PALM ISLAND
HOTEL THE OXENIA PALACE
HOTEL PRESIDENT
HOTEL GRAND CHALET
HOTEL SOSIMEX
ADA HOTEL
MARAKIA TOURISTIC VILLAGE
SMOUIHA CLUB
JUMEIRAH BEACH HOTEL
GLORIA HOTEL
GOKSU HOUSING COMPLEX
ADEM HAVVA HOTEL

TEXTILE AND CLOTHING INDUSTRIES

BSB
DIESEL
EROS
PUTMAN
BOTEKS TEXTILE

INDUSTRIES IN SEVERAL CATEGORIES

EKSIOGLY ALMET
SABA INDUSTRIALS
SPRAY PACK
TETRA PACK
ALEMCO
JEWELER URAL FACTORY
METAL YAPI KONUT
KALELI INSAAT
KRAVSIDONA BRIDGE
NOVURASK SANITARY LANDFILL
TIMEX FACTORY

PRINTING INDUSTRIES

DIKAIOS
STATHATOS
LORETZOS
TZERBINIS
KARABATELIS

TRANSPORT AND AVIATION

OSE, GREEK RAILWAYS
OLYMPIC AIRWAYS
ALEXANDRIA TRAM AUTHORITY
BALLAUF LOGISTICS
TRANMERE TRANSPORTS
MESSINA AIRPORT SICILY

PUBLIC BUILDINGS

ATHENS AIRPORT
DUBAI INTERNATIONAL AIRPORT
HIPPOKRATION HOSPITAL
EGYPTIAN CHAMBER OF COMMERCE
BANK OF GREECE
OSK-GREEK SCHOOL BUILDING AUTHORITY
EGYPTIAN KHALADEEN GARDENS
PRINCE TALLAL VILLA, CAIRO
CHELABINSK CITY BUSINESS CENTER, RUSSIA
MAIN BUILDING OF COAST GUARD MESSINA SICILY, ITALY
CATHEDRAL RAGUSA, ITALY
US EMBASSY, SKOPJA
OLYMPIC BATTMINGTON STADIUM
FOOTBALL STADIUM, BULGARIA
ASTRONOMY BUILDING, SINGAPORE
SEVERAL PUBLIC CHILDREN PLAYGROUNDS
BARCELONA AIRPORT, SPAIN
NORWEGIAN REFUGEE PROJECT- HOUSING PROJECT, LEBANON
VOLLEY STADIUM CATANIA, SICILY ITALY

UNIVERSITIES

UNIVERSITY OF ATHENS
UNIVERSITY OF ALEXANDRIA
UNIVERSITY OF JERUSALEM
UNIVERSITY OF PIRAEUS
UNIVERSITY OF THESSALONIKI
TECHNION ENGINEERING ACADEMY, ISRAEL
SAINT LUCIA UNIVERSITY, AUSTRALIA
BILFEN SCHOOL, TURKEY
TECHNICAL UNIVERSITY, SLOVENIA
UNIVERSITY OF OPORTO, PORTUGAL
UNIVERSITY OF BARCELONA

MILITARY

GREEK ARMY
GREEK NAVY
GREEK AIR FORCE

WATER, ELECTRICITY AND TELECOM

DEH, GREEK ELECTRICITY PROVIDER
EYDAP, ATHENS WATER PROVIDER
ATHENS CENTRAL SEWAGE PLANT (PSITALIA)
OTE, GREEK TELECOMMUNICATIONS PROVIDER
TEL AVIV WATER PROVIDER

COSMETIC AND PHARMACEUTICAL INDUSTRIES

LOREAL HELLAS
AGIS
ELPEN

SHIPPING

SUPERFAST FERRIES
MINOAN FERRIES
HELLAS FERRIES
ALLIED MARITIME
BARCLEY SHIPPING
THENAMARIS SHIPPING
WORLD WIDE OCEAN CARTERING
VANIMAR INC.

OLYMPIC STADIUMS

OLYMPIC BASEBALL STADIUM
(USED IN THE OLYMPIC GAMES IN ATHENS 2004)
OLYMPIC KARAIKAKI STADIUM
(USED IN THE OLYMPIC GAMES IN ATHENS 2004)
OLYMPIC VILLAGE, GREECE
BRUNEI OLYMPIC STADIUM
PAOK FOOTBALL STADIUM
ALEPPO FOOTBALL STADIUM

AND MANY OTHERS

Maris Polymers®

POLYURETHANE SYSTEMS

SUCCESSFUL PRESENCE IN OVER 45 COUNTRIES WORLDWIDE



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