



DS DRYBOX SYSTEM



DRYKOS

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ABOUT US

Drykos is a leader in the **production of crystalline waterproofing agents** and in the supply and application of systems that waterproof and extend the lifespan of concrete structures.

We collaborate as partners with developers, design firms and national and international construction companies to improve **the quality and longevity of civil and public engineering projects.**

MISSION

We design and create eco-sustainable products and systems to waterproof, protect, and extend the life of concrete structures.

EXPERIENCE AND SERVICES

With over 10 years of expertise in waterproofing solutions and technologies, we provide customized solutions and support in the application of our products and systems.

10

YEARS OF
EXPERIENCE

15 MLN

SQUARE METERS OF
WATERPROOFED SURFACES

0

OPEN CLAIMS

OPERATIONAL

4

CONTINENTS

100%

RECYCLABLE SYSTEMS

65%

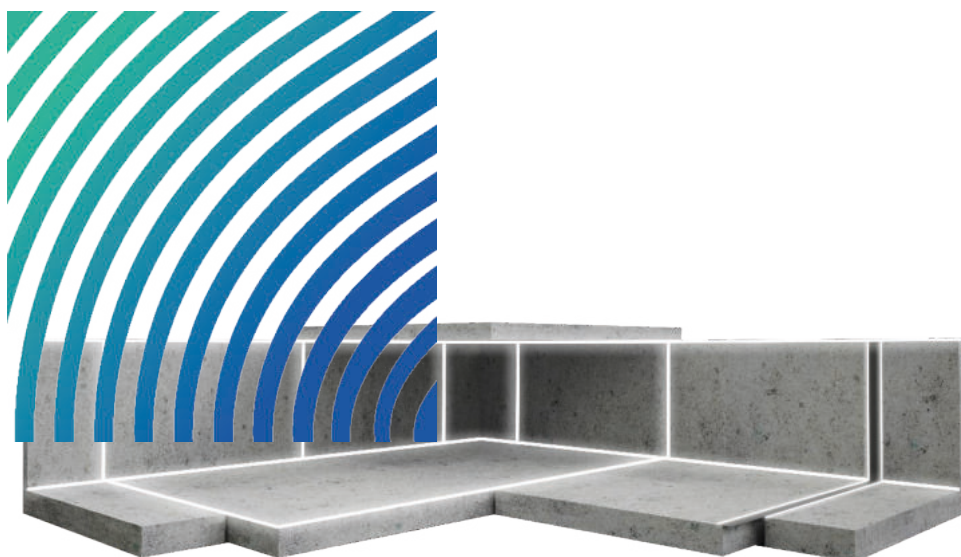
REDUCTION OF
ECOLOGICAL FOOTPRINT

OUR PRESENCE

Numerous projects worldwide (Europe, Gulf countries, West Africa, Brazil, Turkey) have benefited from DRYBOXSYSTEM™ and of our innovative liquid crystalline technology.



DS DRYBOX SYSTEM



DRYBOX SYSTEM™ by DRYKOS is an integrated active waterproofing system with guaranteed protection specifically designed to extend the life of concrete structures, making them safe for people and the environment.

It involves:

Using concrete DRYMIX ULTRA admixture , which, thanks to our innovative crystallization technology, keeps it consistently waterproof and protected over time.

Ensuring the waterproofing of all joints to ensure proper hydraulic protection of the structure.

APPLICATION AREAS

DRYBOXSYSTEM™ is used to waterproof concrete structures exposed to potential/continuous water contact or to chemical attacks that require permanent waterproofing and protection, **even under conditions of high hydrostatic pressure.**

[illegible]

STRENGTHS



ADAPTS TO DESIGN

Does not require changes to the structural design.



IT'S GUARANTEED AND CERTIFIED

Covered by a ten-year warranty and ISO-9001 certified..



EXPERIENCE AND SUPPORT BY YOUR SIDE

Drykos follows the waterproofing process from A to Z, from the design phase to technical instruction and support during system installation.



REDUCES MAINTENANCE INTERVENTIONS AND THUS COSTS

Reduces maintenance and related costs up to 50%



IT'S DURABLE AND SUSTAINABLE

Extends the useful life of concrete structures, protecting them from chemical aggressions.



IT'S ECO-FRIENDLY

Its components do not contain VOCs and are recyclable at the end of the structure's life cycle, unlike other systems such as bituminous membranes and PVC sheets.

DRYBOXSYSTEM™ contributes to achieve **LEED** points



CERTIFIED FOR CONTACT WITH POTABLE WATER



PROTECTION AGAINST CHEMICAL ATTACKS



IT'S SMART

Thanks to our app, our Customer can track all stages of waterproofing work and will have the documentation of all the job.

SYSTEM PHASES

01

**DETAILED
TAILORED
DESIGN**

02

**ADDING
DRYMIX ULTRA
TO CONCRETE MIX**

03

**CONSTRUCTION JOINTS
WATERPROOFING**

04

**INSTRUCTION AND
TECHNICAL SUPPORT
DURING APPLICATION**

05

**TEN-YEAR
WARRANTY**

PHASE 1: DETAILED AND TAILORED DESIGN

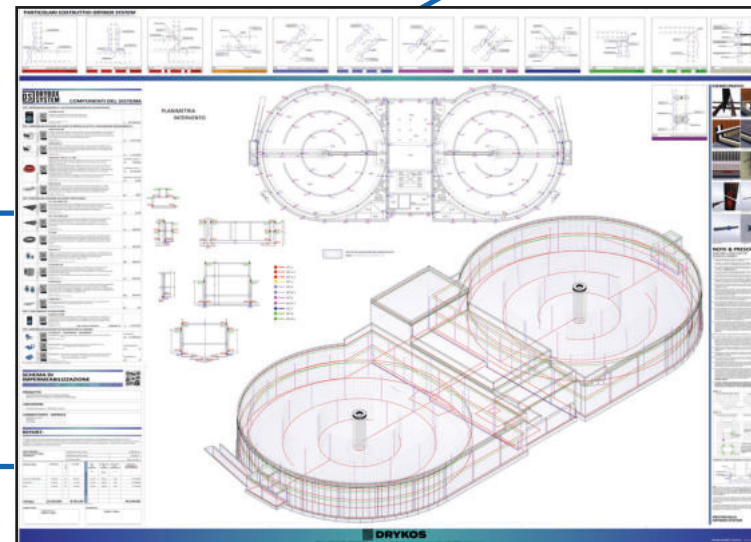
Our team understands the individual needs and requirements of each project and works alongside developers, architects, engineers and builders to ensure a complete waterproofing of the structure to be built. We fully understand the importance of accurately detailing the project's waterproofing and also provide the necessary support to designers for bids.

Components breakdown

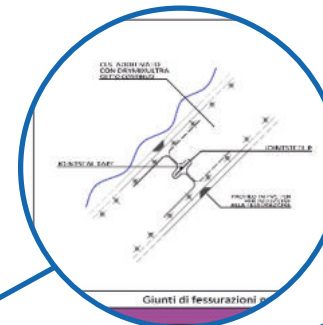


Calculation of volumes and surfaces m

STRUTTURA	SUPERFICIE
	m ²
PLATEA DI FONDAZIONE	4.309,00
ELEVAZIONI	6.870,00
SOLAI	1.539,00



Construction system details



Notes and specifications

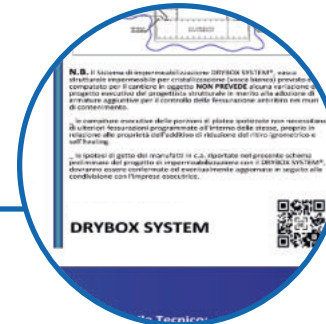
NOTE & PRESENTAZIONE FASI PRE e POST GETTO PLATEE e PARETI

1. Utilizzare distanziatori in PVC o cemento aventi altezza da posarsi su strato regolare di magrone.
2. In platea, i cavallotti di separazione tra la maglia superiore non dovranno essere appoggiati direttamente sul magrone.
3. Per i corpi estranei, qualora inglobati nella vasca bianca, tubazioni, si prescrive uno strato minimo di 50 cm di calce e magrone. (VEDERE PIANO 3).
4. Per i corpi estranei, qualora attraversino la vasca bianca, i dettagli costruttivi del DRYBOX SYSTEM, tipo Studolo, dovranno essere adeguatamente armati con barre di acciaio.
5. Lo spessore minimo delle platee e delle pareti dovrà essere inferiore a 20 cm, prevedendo una doppia armatura.
6. Gli ancoraggi di fissurazione del DRYBOX SYSTEM, tipo Studolo, dovranno essere adeguatamente armati con barre di acciaio.
7. Per le eventuali riprese di getto dove si rende necessario, si prescrive l'uso di barre di acciaio tipo Studolo, che potrà essere sostituito con barre di acciaio di diametro maggiore di 30 cm.

N.B. Il sistema di impermeabilizzazione DRYBOX SYSTEM, è un sistema a membrana impermeabile che non prevede l'uso di materiali di riempimento. Il sistema non prevede l'uso di materiali di riempimento. Il sistema non prevede l'uso di materiali di riempimento.

DRYBOX SYSTEM

QR code access to technical documentation of the system



PHASE 2:

ADDITION OF DRYMIX ULTRA TO CONCRETE MIX

The fundamental element of DRYBOXSYSTEM™ is DRYMIX ULTRA, our water-based crystalline waterproofing admixture. **DRYMIX ULTRA is added to the concrete mix in the batching plant using normal additive dispensers, thus it integrates in the plant's automated cycle.** The exact quantity of product used will be indicated in the end cycle report.

PROBLEM

One of the inherent and natural characteristics of concrete is the formation of porosity and capillary discontinuities in the mass during the hydration phase.

Pores and capillaries make concrete permeable, allowing water to pass through, carrying inside external aggressive chemicals responsible for its deterioration over time.

SOLUTION

DRYKOS' research into concrete crystallisation technology led to the development of DRYMIX ULTRA, a water-based liquid additive that, when added to the concrete mix, **completely waterproofs its mass.**

The active ingredients in DRYMIX ULTRA react with the free lime, silicates, and aluminates present in the concrete pores, forming inside them an insoluble crystalline needle-like complex that stops the penetration of water, thus waterproofing the entire mass.

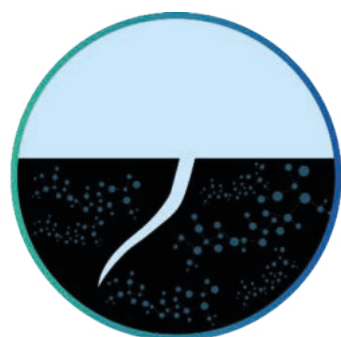
The chemical components **remain active over time** and can **reactivate in presence of moisture or water**, sealing micro-cracks up to 0.4 mm.



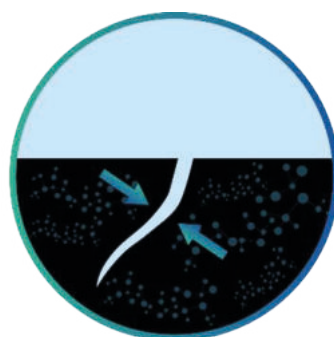
HOW DOES CRYSTALLINE TECHNOLOGY WORK?

SELF HEALING PROTECTION:

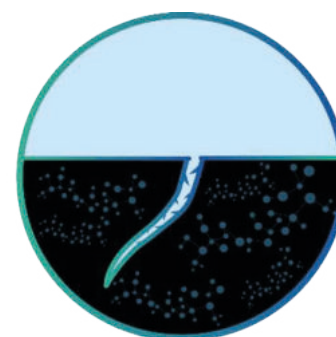
The crystalline technology protects concrete from chemical attacks, from seawater and wastewater. Concrete treated with DRYMIX ULTRA is also certified for structures containing potable water.



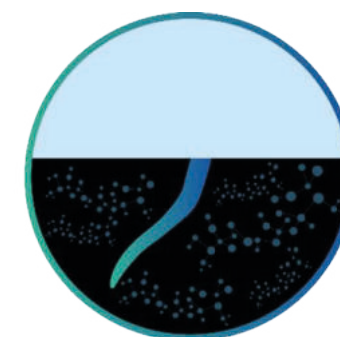
**MOISTURE ENTERS
THROUGH
CAPILLARIES
AND CRACKS**



**CONTACT WITH
WATER STARTS THE
CRYSTALLIZATION
PROCESS**



**CRYSTALLIZATION
CONTINUES UNTIL CRACKS
AND CAPILLARIES ARE
COMPLETELY SEALED**



**CONCRETE IS AGAIN
PERMANENTLY
WATERPROOFED**



WATER



CONCRETE
ADMIXED WITH
DRYMIX ULTRA



CRYSTALS

BENEFITS OF CRYSTALLINE TECHNOLOGY

**WATERPROOFS**

the concrete mass and seals its pores and capillaries, preventing the penetration of external chemical agents (CO₂, chlorides, sulfates) that cause reinforcement corrosion.

**IT'S PERMANENT,**

unlike membranes with limited lifespans.

**IT'S SELF-SEALING,**

for cracks up to 0.4 mm, even if they develop over time.

**AVOIDS DELAYS IN THE
CONSTRUCTION SCHEDULE**

concrete is already waterproofed as soon as it's casted, no need to wait for its maturation as for other waterproofing systems.

**IT'S COST-EFFECTIVE**

is less expensive than other waterproofing systems.

**IT'S ECO-FRIENDLY**

uses the inherent chemistry of concrete and does not harm the environment.

PHASE 3: WATERPROOFING OF JOINTS



**CASTING
RESUMPTION JOINT
BETWEEN TWO RAFT
SLABS**

**JOINT BETWEEN
RAFT SLAB AND
WALLS**

**CASTING
RESUMPTION
JOINT BETWEEN
WALLS**

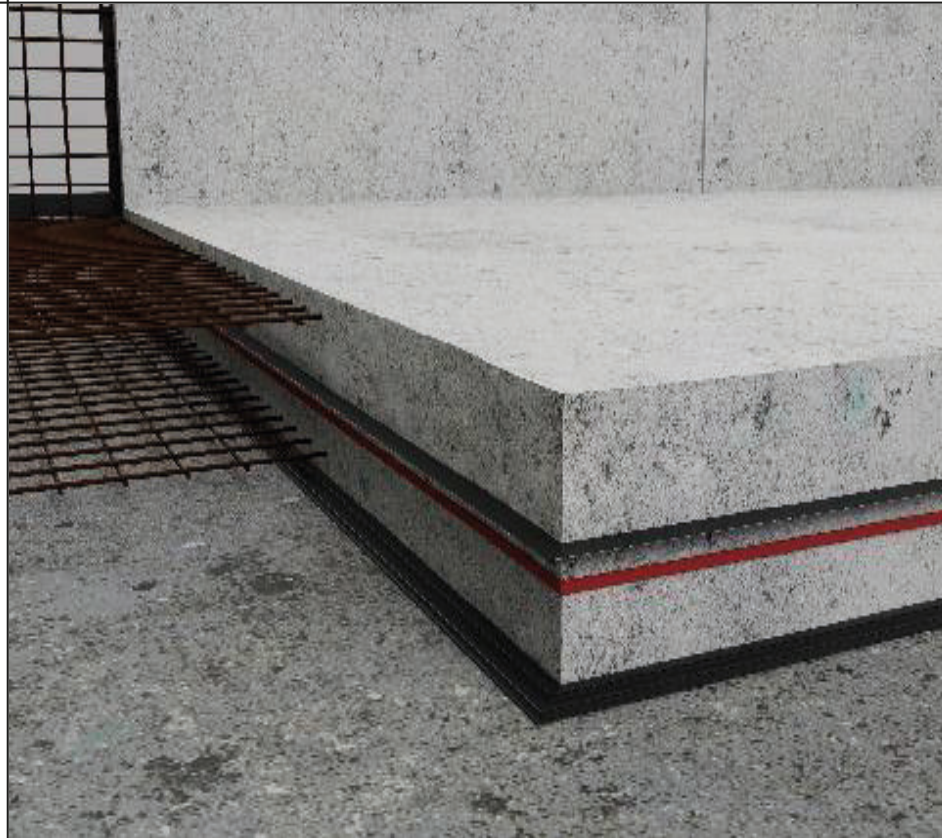
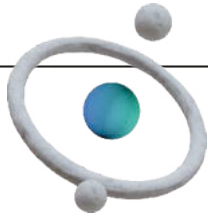
**PROGRAMMED
CRACKING JOINT IN
WALLS**

**CASTING RESUMPTION
JOINT BETWEEN WALLS
AND SLAB**

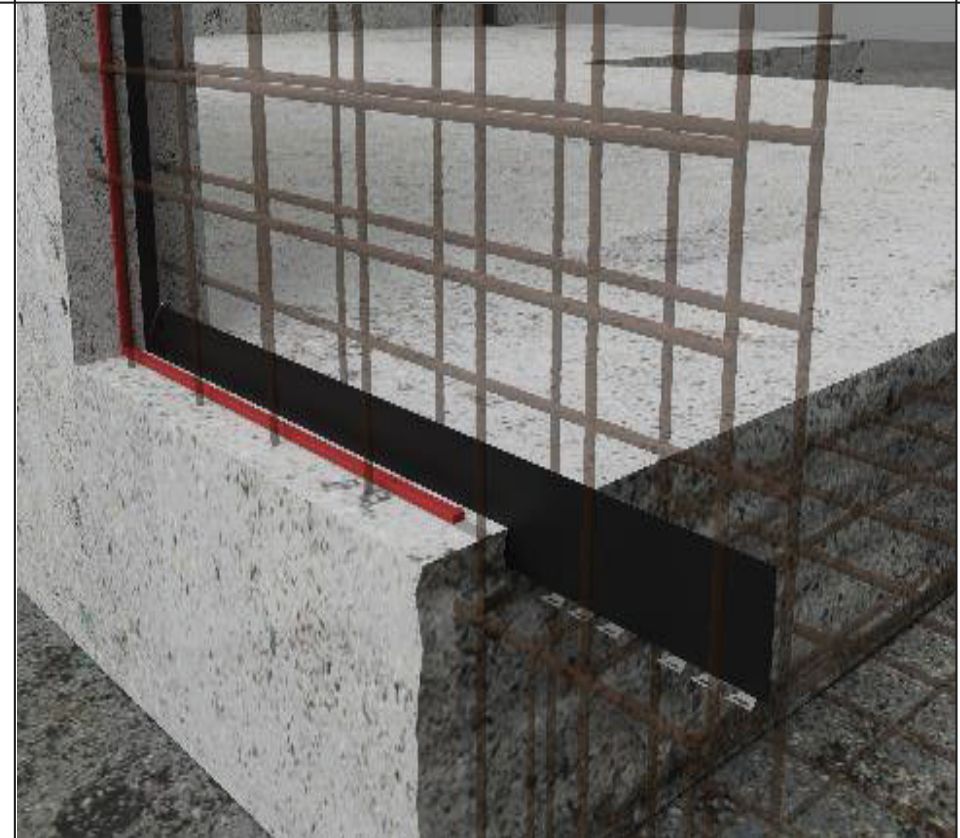
**EXPANSION
JOINT**

**FORMWORK SPACERS
WATERPROOFING**

**PASSING PIPES
WATERPROOFING**



**CASTING RESUMPTION JOINT
BETWEEN TWO RAFT SLABS**



**JOINT BETWEEN RAFT
SLAB AND WALLS**

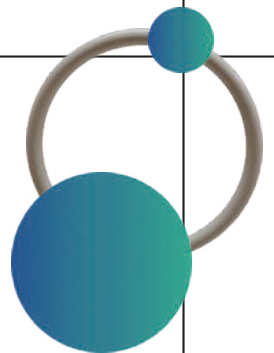


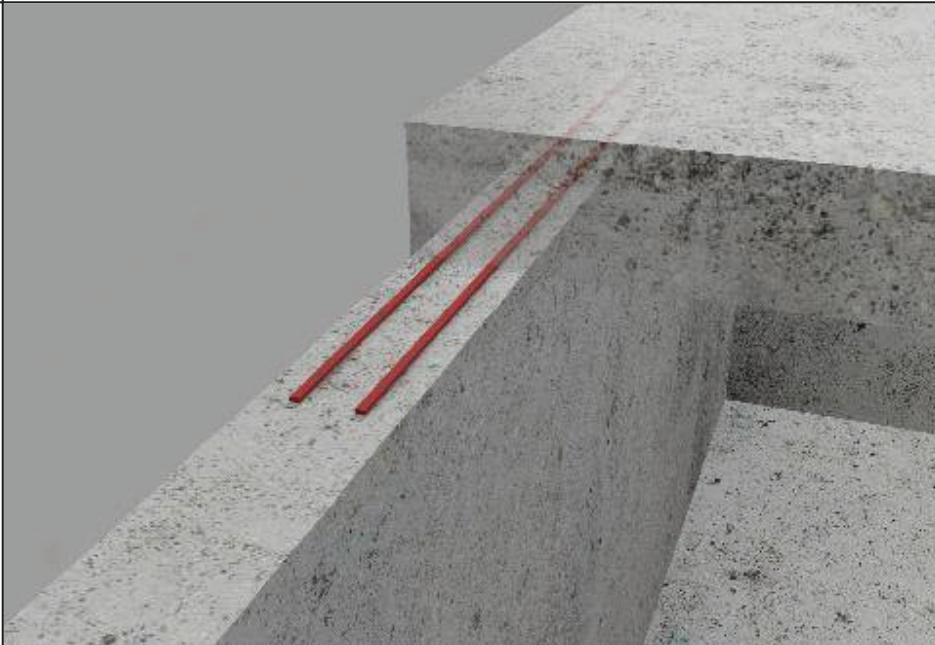


**CASTING RESUMPTION
JOINT BETWEEN WALLS**



**PROGRAMMED CRACKING
JOINT IN WALLS**





**CASTING RESUMPTION JOINT
BETWEEN WALLS AND SLAB**



EXPANSION JOINT

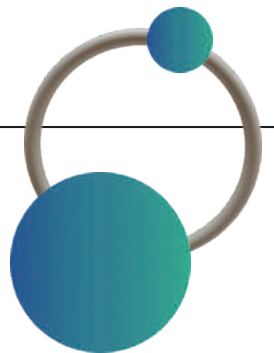




**FORMWORK SPACERS
WATERPROOFING**



**PASSING PIPES
WATERPROOFING**



PHASE 4: INSTRUCTION AND TECHNICAL SUPPORT DURING APPLICATION

The DRYBOXSYSTEM™ team of experts supports designers, project managers and construction companies in the application of DRYBOXSYSTEM from the design to the completion of the of the structure, providing:

Support during the design phase

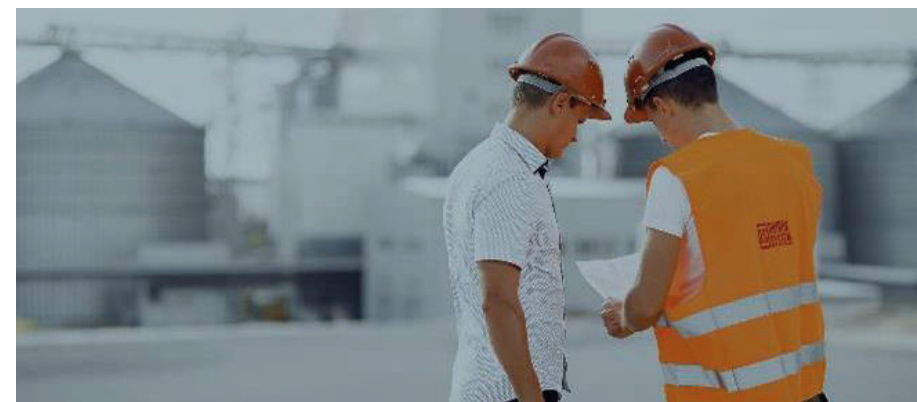
Analysis of concrete mixes incorporating DRYMIX ULTRA

Pre-qualifications to optimize mix design

Verification of correct dosage of DRYMIX ULTRA at the batching plant

Training and support for personnel involved in system installation

Random sampling to verify permeability parameters of the concrete during construction phases



DRYKOS TECHNICAL SUPPORT

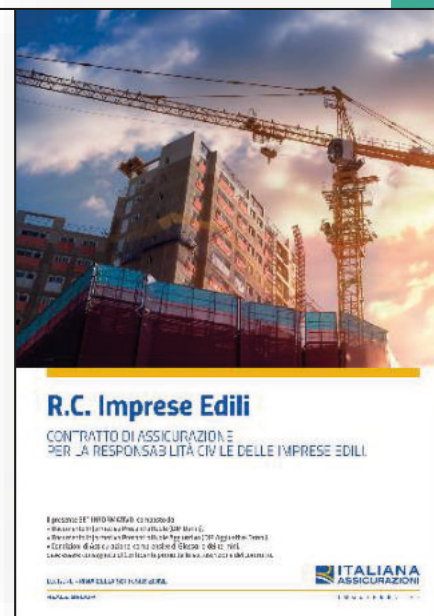
Constant on-site support during the installation of the components of DRYBOXSYSTEM.

SMART

Web app that traces all phases of application, with site reports and pictures. Designers and Project Managers can follow the stages of system application in real time.

PHASE 5:

TEN-YEAR WARRANTY (not available in all countries)



A ten-year waterproofing warranty by a leading insurance company can be issued when DRYBOXSYSTEM™ has been correctly applied and certified under the supervision of DRYKOS technicians.

CERTIFICATIONS



CONCERN FOR THE ENVIRONMENT AND SUSTAINABILITY



At DRYKOS respect for the environment is an essential part of doing business.

Our Research & Development department designs and develops only products with minimal or no environmental impact.

In addition, DRYKOS solutions **increase the durability** of concrete constructions: by reducing maintenance and repair work, we reduce the environmental impact of constructions.

Data from ICRI Committee 160 report that the most effective sustainability strategy for concrete structures **is to avoid the need for repairs**. DRYKOS products and systems, by eliminating high-emission coatings and membranes, by extending the service life of concrete, avoiding costly repairs and using non-toxic products **contribute to more sustainable construction projects**.

LEED

Our waterproofing system can increase LEED points for projects

ZERO VOC

DRYKOS range of crystalline products, free of VOC, guarantees the health and safety of both people and applicators.

RECYCLABLE

Concrete admixed with DRYMIX ULTRA and almost all of our waterproofing accessories can be recycled, unlike other systems based on petroleum derivatives or polymers.

LESS CO2

The use of crystalline technology, that waterproofs concrete and makes it self-healing, **can reduce the carbon footprint of a structure by 65% or more, significantly extending its useful life.**

The use of a permanent waterproofing solution such as DRYBOXSYSTEM reduces the need for maintenance and drastically decreases the carbon footprint.

REACH COMPLIANT

Our system components contain no toxic or carcinogenic substances.

WE WORK WITH



REFERENCES



NUOVO POLICLINICO

MILANO, ITALY

Project implemented in
collaboration with the SIS
consortium



REFERENCES



NEW UNIVERSITY RESIDENCE, BUILDING U 10

MILANO BICOCCA,
ITALY

Project implemented in
collaboration with CMC -
Consorzio Integra



Customer

S.A.C. construction
contracting company

Developer

CMC - CONSORZIO
INTEGRA

REFERENCES



**BOLOGNA
BUSINESS
SCHOOL**

BOLOGNA, ITALY

Project implemented in
collaboration with Mario
Cucinella's architecture studio

mario cucinella architects

MC A

REFERENCES

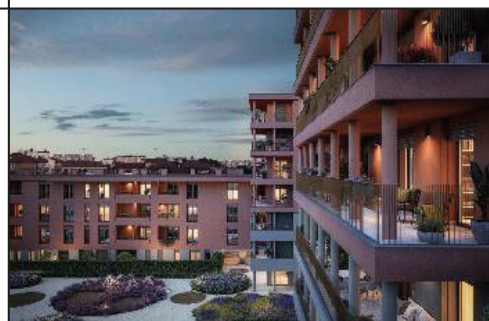


**VIA MONTELLO 6
VIA JENNER CENTRO TOG
VIA ARRIVABENE
VIA CEFALONIA 18**

MILANO, ITALY

Project implemented in
collaboration with Borio
Mangiarotti S.p.a.

 Borio
Mangiarotti



REFERENCES



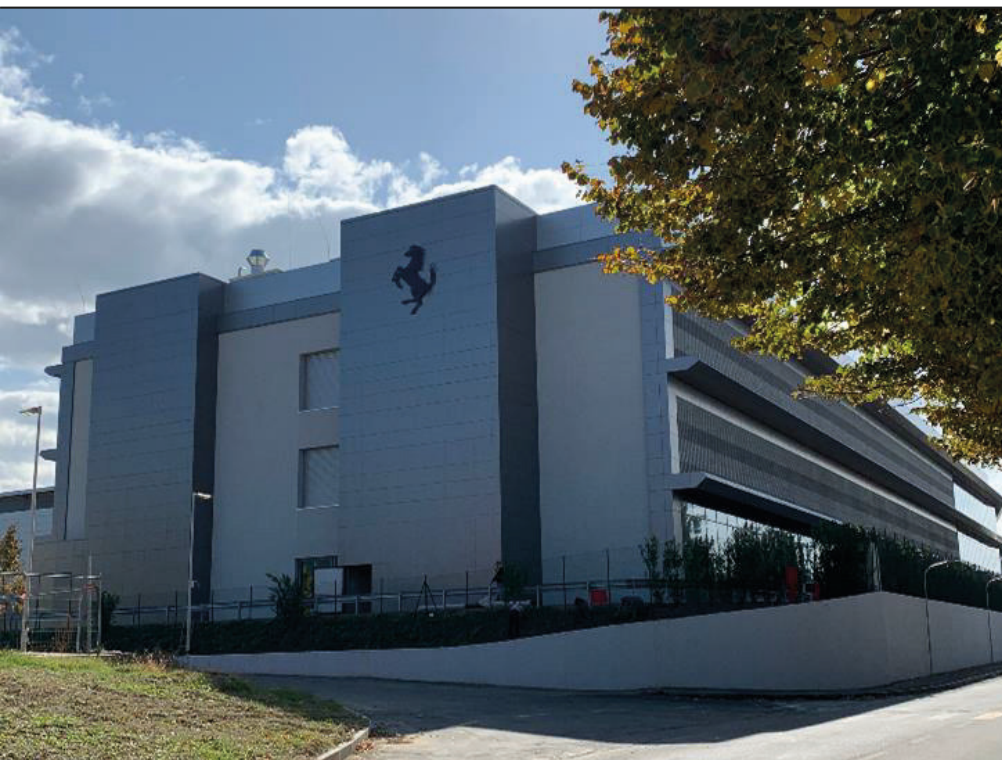
METRO STATION REBAUDENGO

TORINO, ITALY

Project implemented in
collaboration with Cervit
Società Consortile A R.L.



REFERENCES



FERRARI S.P.A.

MARANELLO, ITALY

Project implemented
in collaboration with
Ing. Ferrari S.p.a.

 **INGFERRARI** ® s.p.a.

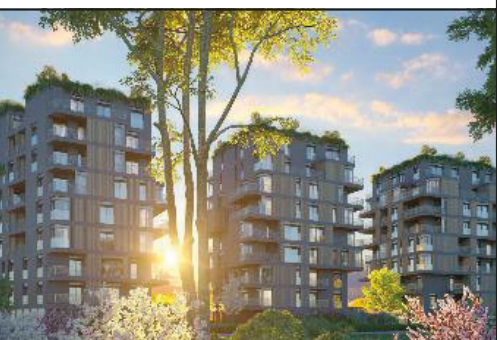
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NEW RESIDENCE AREA EX DE NORA

MILANO, ITALY

Project implemented in
collaboration with SMV
COSTRUZIONI SRL



REFERENCES



HIPPODRHOME

MILANO, ITALY

Project implemented in
collaboration with
Facchetti Costruzioni S.p.a.



REFERENCES



**GYM AND HIGH SCHOOL
DI SIGONIO**

MODENA, ITALY

Project implemented in
collaboration with
Impresa CMB



REFERENCES



WINTER WONDERLAND AL MAHA ISLAND

QATAR

Project implemented in
collaboration with Gulf
Consulting Group



Customer

QATARI DIER,
ELEGANCIA GROUP

Designer

GULF CONSULTING
GROUP

Developer

URBACON CONTRACTING
COMPANY

REFERENCES



THE PEARL RESIDENTIAL TOWERS

QATAR

Project implemented in collaboration with HTCO

HTCO
HANY TAWFIK CONSULTING OFFICE

Customer

SHEIKH MOHAMED ABDUL RAHMAN HAMAD AL THANI

Design

HTCO

Developer

SALTOS TRADING & CONTRACTING

REFERENCES



SKALA TOWER HOTEL & RESIDENTIAL

QATAR

Project implemented in collaboration with Sigma Contracting & Trading

SIGMA

Customer

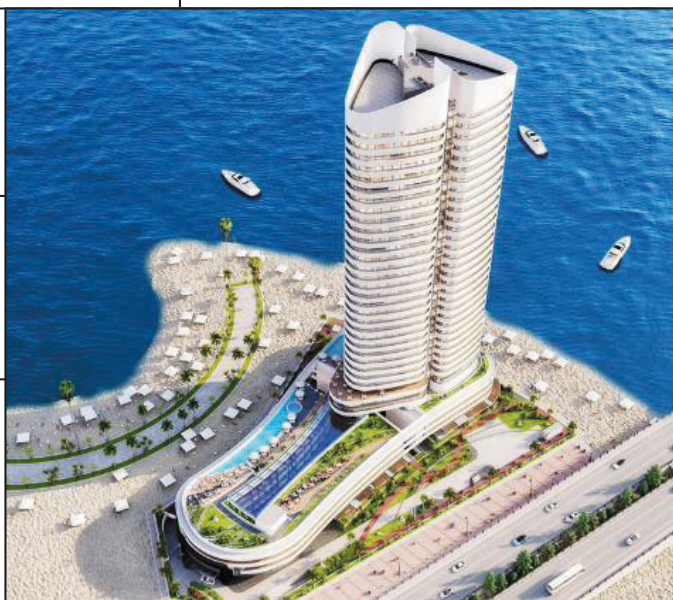
ARIANI

Design

AL FEREEJ
CONSULTANCY

Developer

SIGMA CONTRACTING &
TRADING



REFERENCES



**KATIP CELEBİ
UNIVERSITY IZMİR**

TURKEY

Project implemented in
collaboration with



REFERENCES



**ISTANBUL
RESIDENCE
BUILDING**

TURKEY

REFERENCES



ÇAMSAN PARK AVYM

TURKEY

Project implemented in
collaboration with
Çamsan Gayrimenkul



REFERENCES



CONCESIO PURIFICATION PLANT

BRESCIA, ITALY

Project implemented in
collaboration with Azienda
Servizi Valtrompia



REFERENCES



PURIFICATION PLANT PAVIA ACQUE

PAVIA, ITALY

Project implemented in
collaboration with Pavia Acque

**PAVIA
ACQUE**
Servizio Idrico Integrato

REFERENCES



MONTAGNANA STORAGE TANKS

PADOVA, ITALY

Project implemented
in collaboration with
Acque Venete



REFERENCES



WATER DRIVING SYSTEM STORAGE TANK

MESTRE, ITALY

Project implemented in
collaboration with
Acque Venete



REFERENCES



CASALABATE PURIFICATION PLANT

LECCE, ITALY

Project implemented in
collaboration with
AQP - Acquedotto Pugliese



REFERENCES



RIVER CONTAINMENT TANK SCAMA STRADE

MILANO, ITALY

Project implemented
in collaboration with
CAP Holding



REFERENCES



PURIFICATION PLANT

ANDRIA, ITALY

Project implemented in
collaboration with AQP -
Acquedotto Pugliese



REFERENCES



WATER TRANSFER TANKS IN MELENN

TURKEY

Project implemented in
collaboration with
Kalyon Construction



REFERENCES



SAN MAURIZIO CANAVESE PURIFICATION PLANT

TORINO, ITALY

Project implemented
in collaboration with
Smat Torino



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DRYKOS



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