



KRYSTALINE ADD1 & CSH TECHNOLOGY

WHAT WE DO

Who are we?

Spanish company, founded in 2016.

Manufacturers of admixtures and mortars for construction.

We are part of one of the first European projects since 2005.





CSH TECHNOLOGY FROM KRYSTALINE

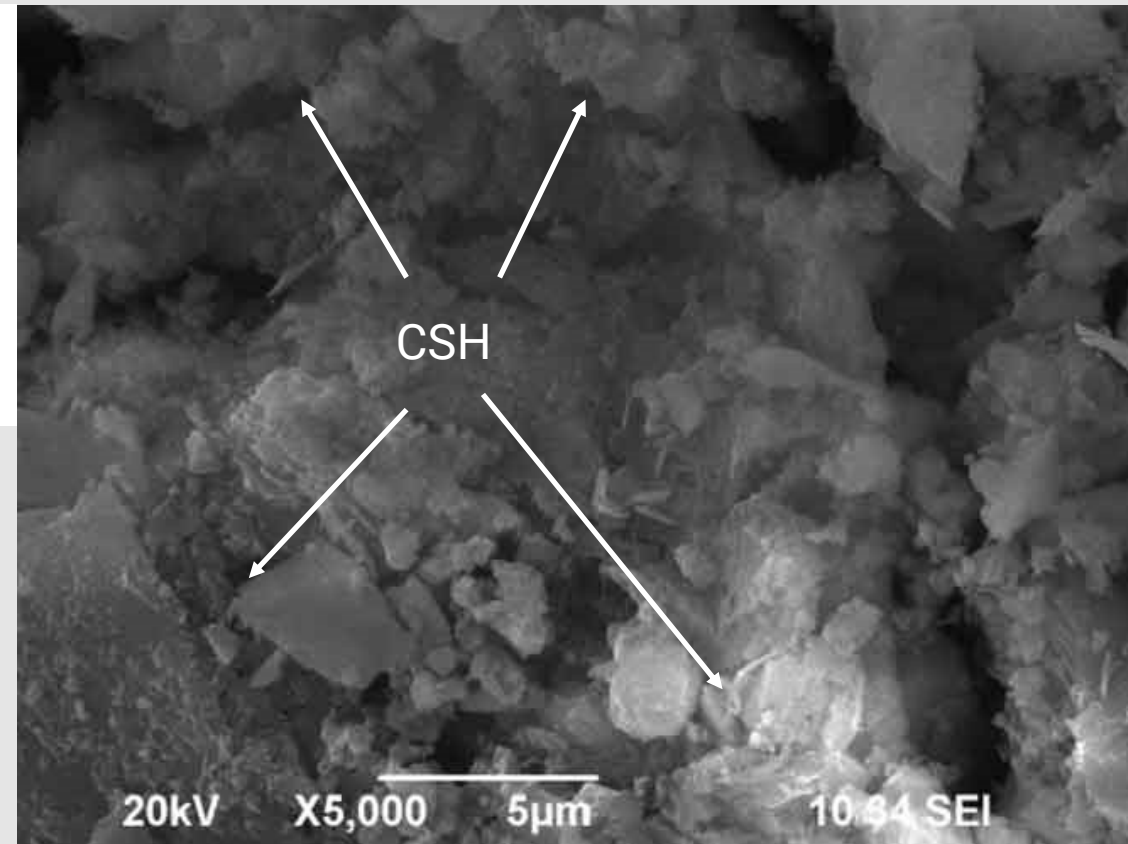
THE NEXT GENERATION OF CRYSTALLINE WATERPROOFING ADMIXTURES!

What is CSH?

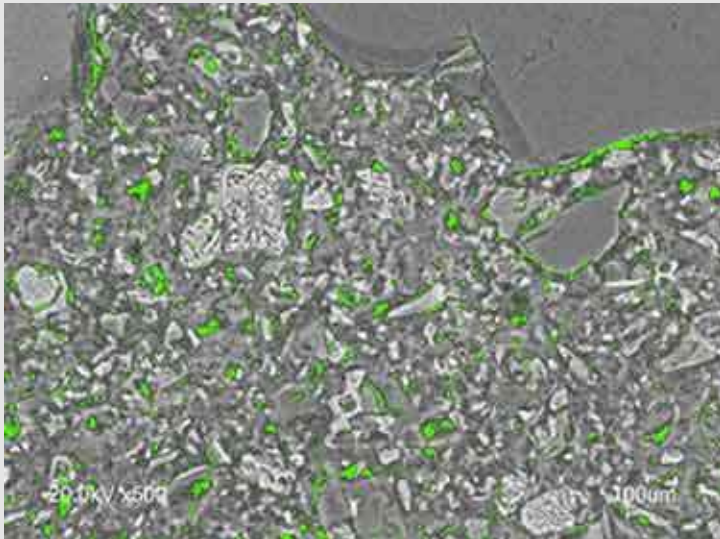
CALCIUM SILICATE HYDRATE

It is the glue that makes concrete strong.

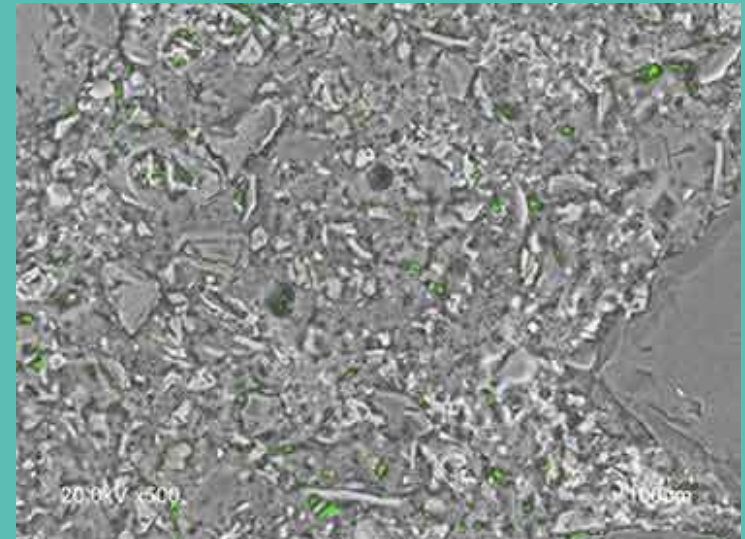
- It is created during the hydration process and continues in the long term if water is present.
- It is a non-soluble binder.
- It is considered a hybrid as its structure shares both crystalline and gel characteristics.



COMPARISON BETWEEN: REFERENCE CONCRETE vs **KRYSTALINE CSH TECHNOLOGY CONCRETE**



REFERENCE



KRYSTALINE



ENHANCES CSH GELS AND CRYSTALS

CSH



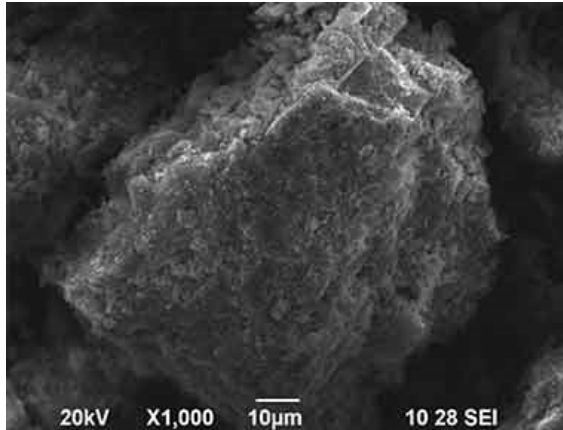
CALCIUM SILICATE HIDRATE

Ca(OH)_2



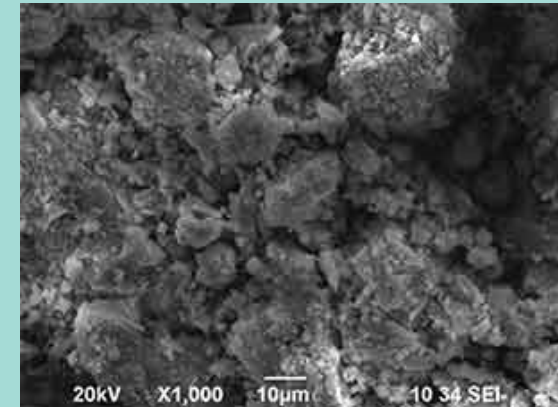
CALCIUM HYDROXIDE (PORTLANDITE)

SAMPLES TAKEN AT **28 DAYS**



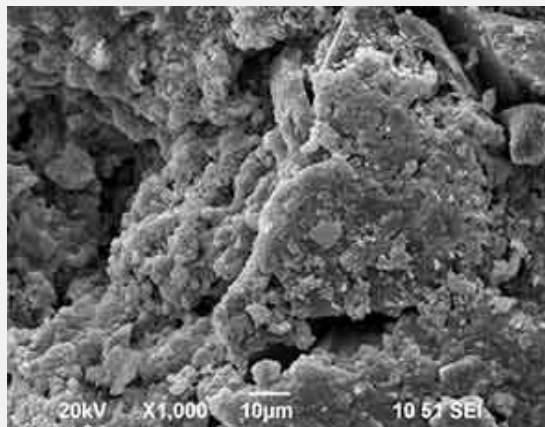
REFERENCE CONCRETE

VS



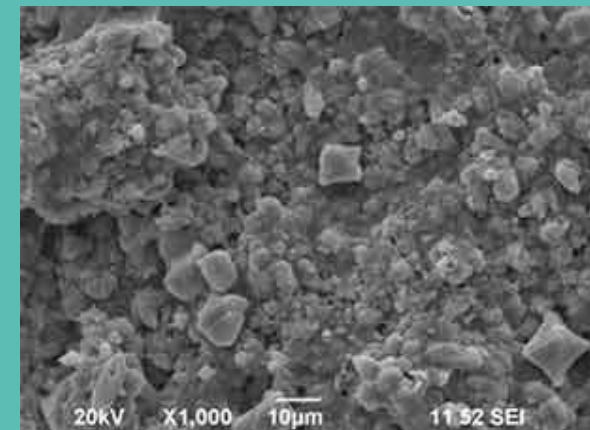
CONCRETE TREATED WITH KRYSTALLINE

SAMPLES TAKEN AT **2 YEARS**



REFERENCE CONCRETE

VS



CONCRETE TREATED WITH KRYSTALLINE

2 PRODUCT LINES

Krystaline Admixtures



KRYSTALINE **ADD1**



KRYSTALINE **ADD 1 CW**



KRYSTALINE **ADD PLUS 2.5**



KRYSTALINE **ULTRA**

Krystaline Add1

- State-of-the-Art Admixture based on Krystaline's CSH technology.
- Dosed at 1 Kg/m³ of concrete
- Its main function is to make concrete waterproof.
- Its secondary function is plasticizer, water reducer and setting retarder.
- Hydrophilic admixture, which improves the hydration of the cement paste.
- Generates an improvement in the internal structure of the concrete, resulting in a more durable, corrosion-free concrete that is more resistant to chemical attack.



ADMIXTURE LINE

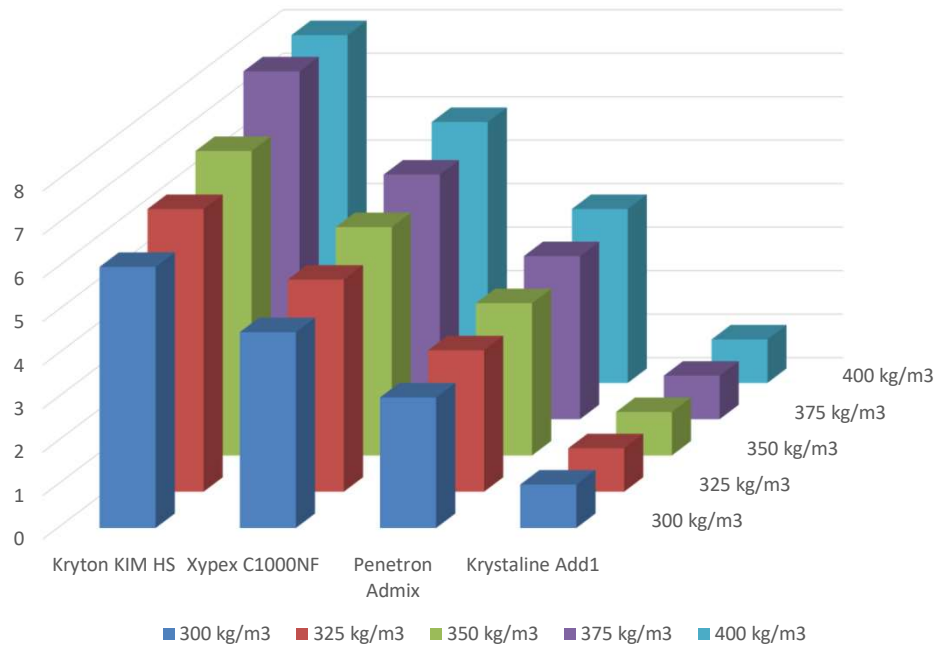
Krystaline Add1 - Presentation

- Packaged in 20 kg recycled plastic buckets.
- Pre-dosed in 1kg water-soluble bags, ready to use.
- Its dosage is ALWAYS 1kg/ m³ of concrete



ADMIXTURE LINE

Krystaline Add1 – Dosage



For a standard concrete of 350 kg/m³



ADMIXTURE LINE

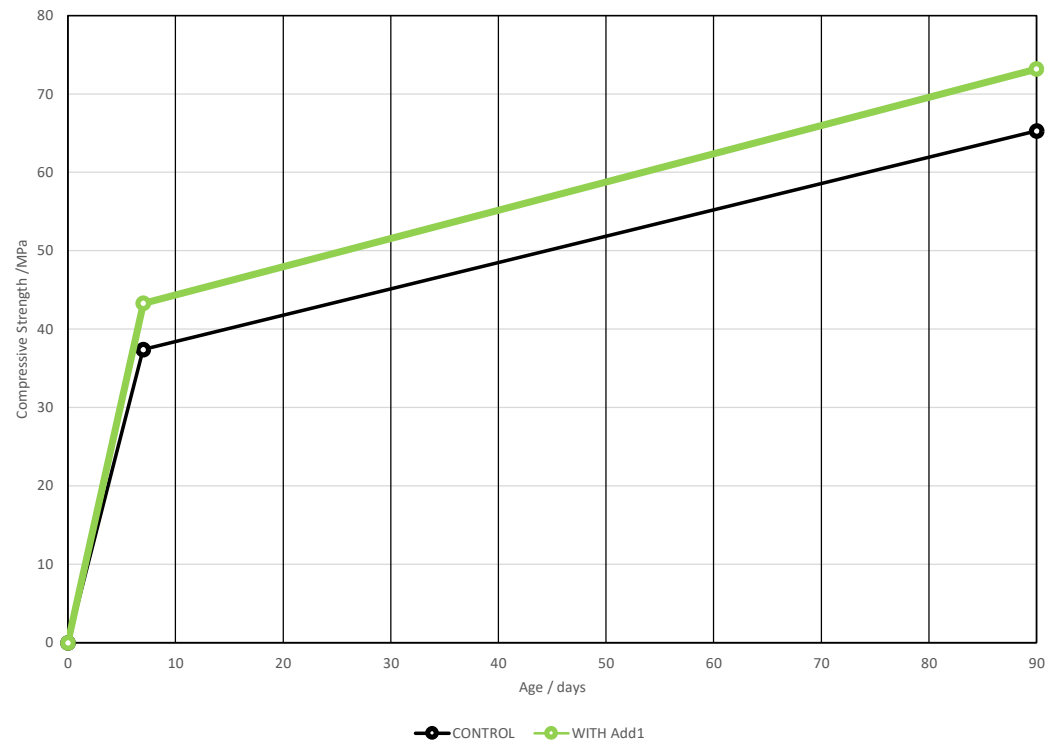
Krystaline Add1 - Certifications and tests



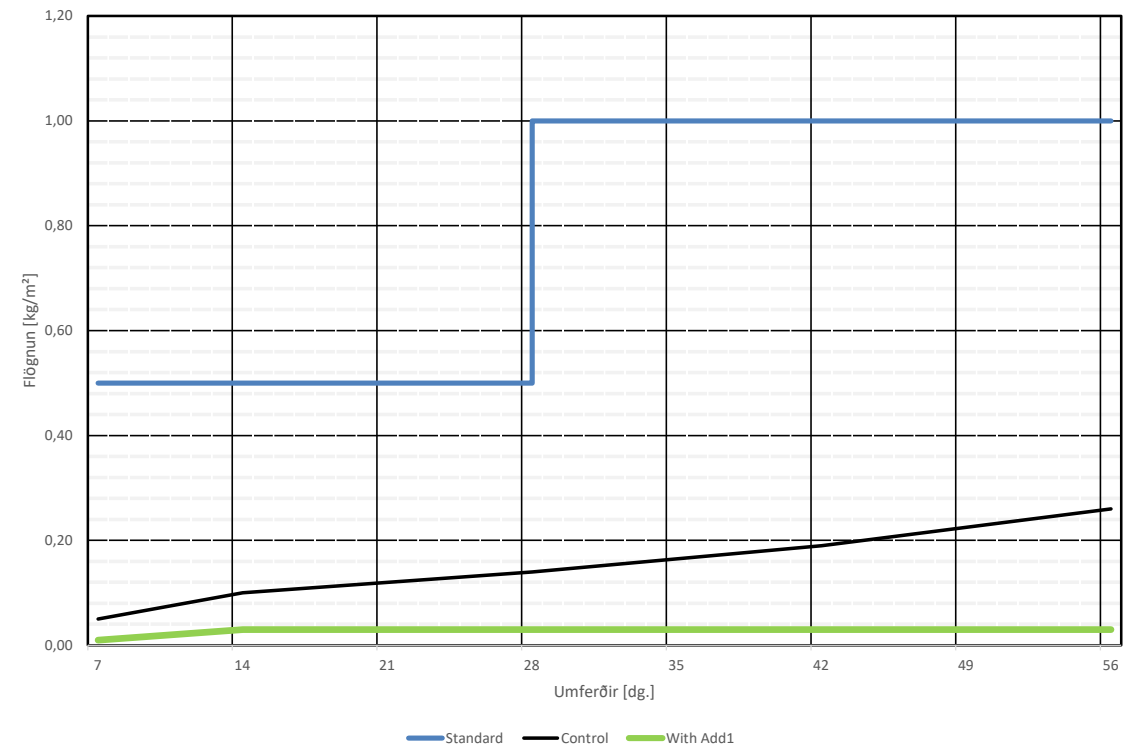
ADMIXTURE LINE

Krystaline Add1 – Tests in Iceland

Control concrete vs Concrete with Krystaline Add1



Freeze thaw resistance



Krystaline Add1 - Benefits

- Seals and waterproofs cracks up to 0.5 mm.
- It is a substitute for conventional waterproofing systems.
- High resistance to hydrostatic pressure. It is capable of waterproofing under negative pressure.
- It reduces carbon emissions.
- Suitable for use in contact with drinking water.

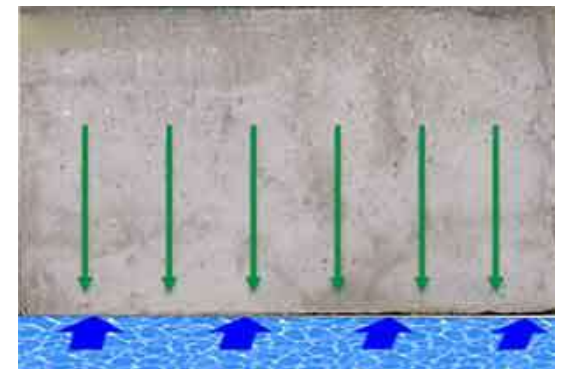
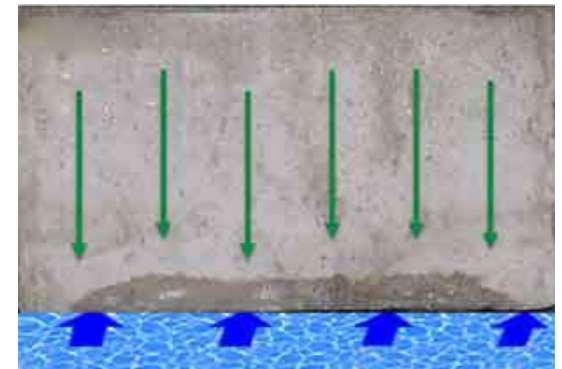


Krystaline Add1 - How it works

Turns concrete into waterproof concrete:

- Reduces permeability by up to 92.5%.
- Tests have shown that we are able to have only 0.5 mm penetration at 18 bar water pressure (over 183 mwc).

It expels any water that tries to penetrate the concrete:



ADMIXTURE LINE

Krystaline Add1 - How it works

Crack self-healing





ADMIXTURE LINE

Krystaline Add1 CW

- Dosed at 1 Kg/m³ of concrete
- It is a CSH integral hydrophilic technology additive.
- It is an additive designed to work at low temperatures.
- Improves initial setting at low temperatures
- Improved strength, reduced permeability and increased durability of concrete



ADMIXTURE LINE

Krystaline Ultra

- Dosed at 1 Kg/m³ of concrete
- It is a CSH integral hydrophilic technology additive.
- It is an additive designed for precast products.
- It increases the initial resistance, thus improving the productivity of precast factories.
- Improved strength, reduced permeability and increased durability of concrete



2 PRODUCT LINES

Concrete Repair Products - Krystaline

Concrete surface protection
systems (EN 1504-2)



KRYSTALINE 1



KRYSTALINE DRY

Structural and non-structural
repair systems (EN 1504-3)



KRYSTALINE BLOCK



KRYSTALINE BLOCK F



KRYSTALINE M60



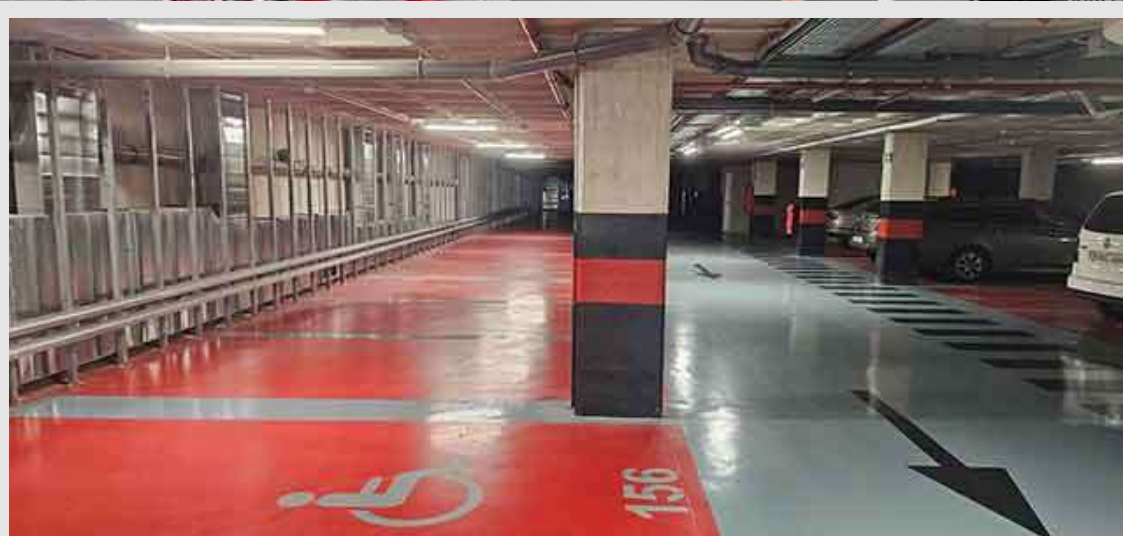
KRYSTALINE PLUG

WORKS

Our Projects

DIGITAL DISTRICT- ALICANTE (SPAIN)



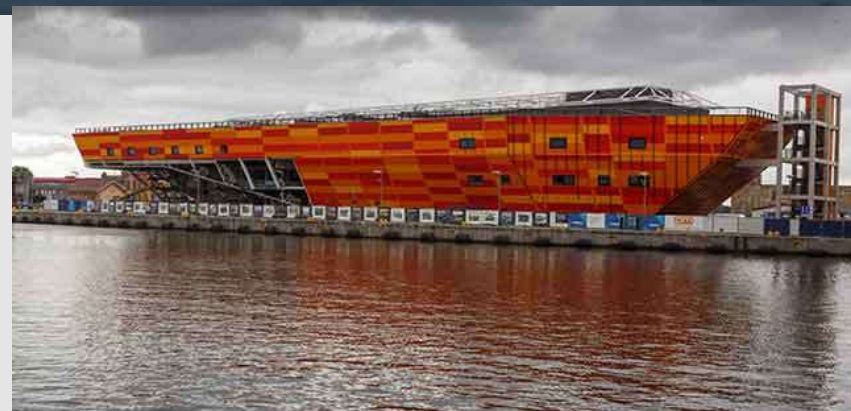


HARBOUR LOFTS – PALMA DE MALLORCA (SPAIN)

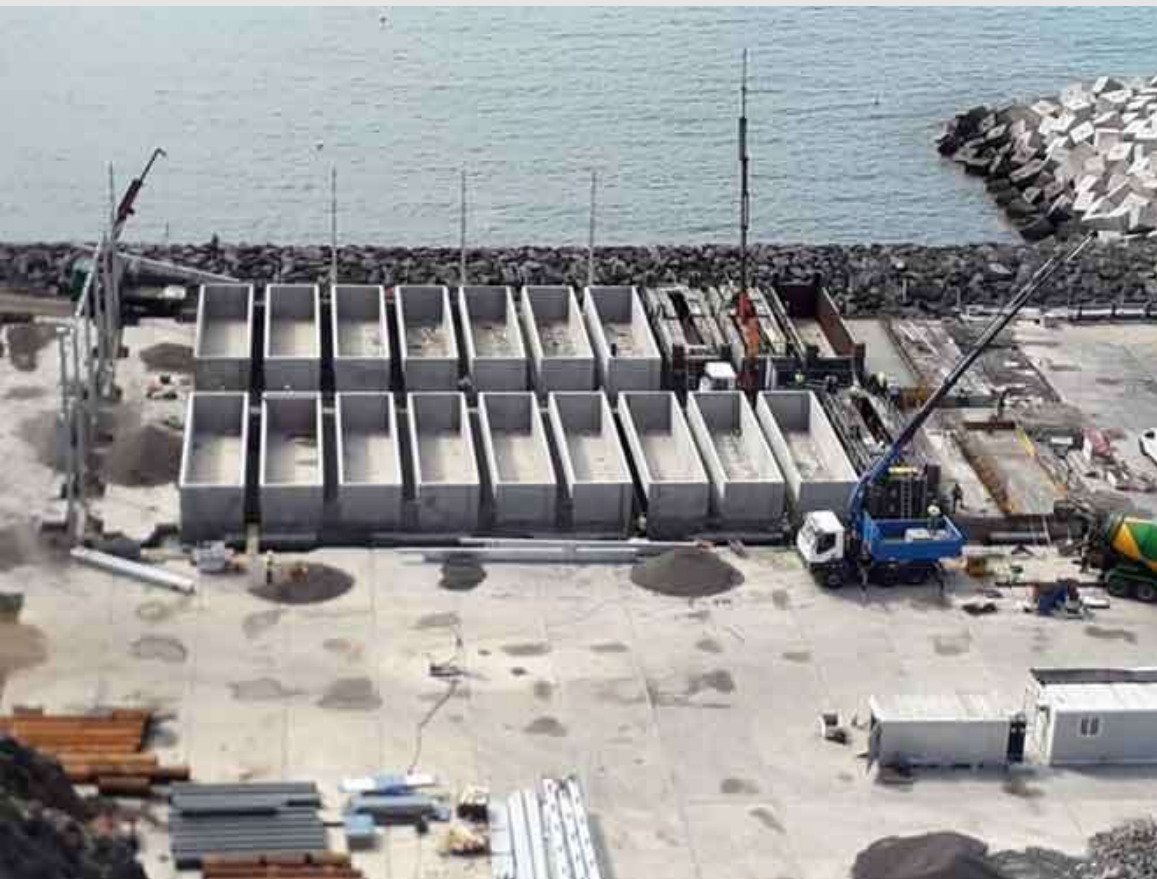


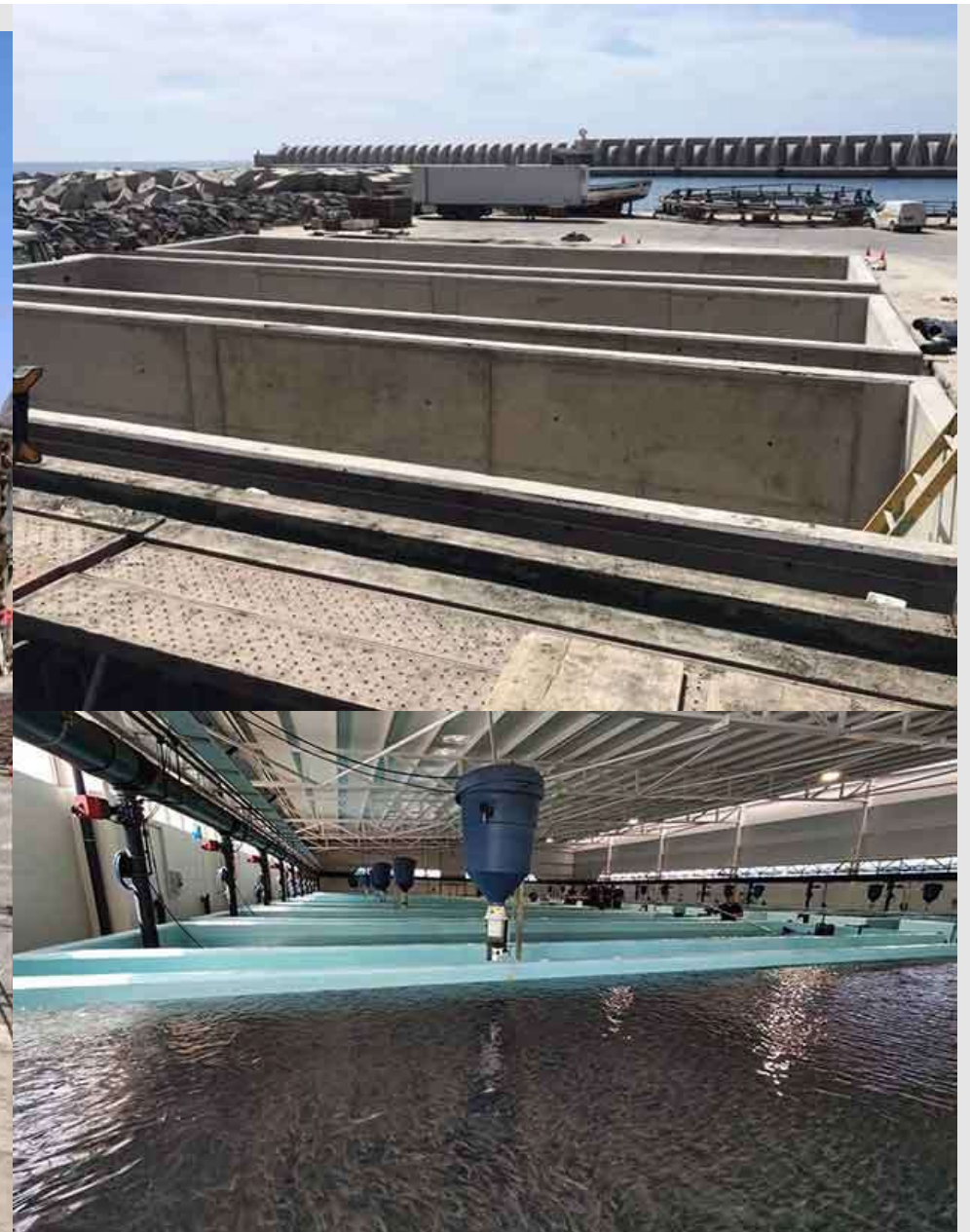


MARITIME SCIENCE CENTER – SZCZECIN (POLAND)



ACUIPALMA FISH FARM- TENERIFE (SPAIN)





FIRE FIGHTING TANK- ALICANTE (SPAIN)





ARTIFICIAL LAKE – WEST PARK SOFIA (BULGARIA)



DAM - PERÚ





CONSTRUCTION – BOLUNGARVIK



THANK YOU



www.Kristalsteypa.is



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KRYSTALINE