

2019 | English

LIQUISHIELD - FLUID CONTAINMENT LINING SYSTEMS

INDUSTRIAL LININGS

WATERPROOFING

FLOORING

TURNKEY SOLUTIONS

THE LIQUISHIELD ADVANTAGE

Fast spray application process

VIP Liquishield containment systems are rapidly and seamlessly spray applied to virtually any substrate including geotextile blankets making earthen bunds a cheap construction alternative for secondary containment safety bunds.

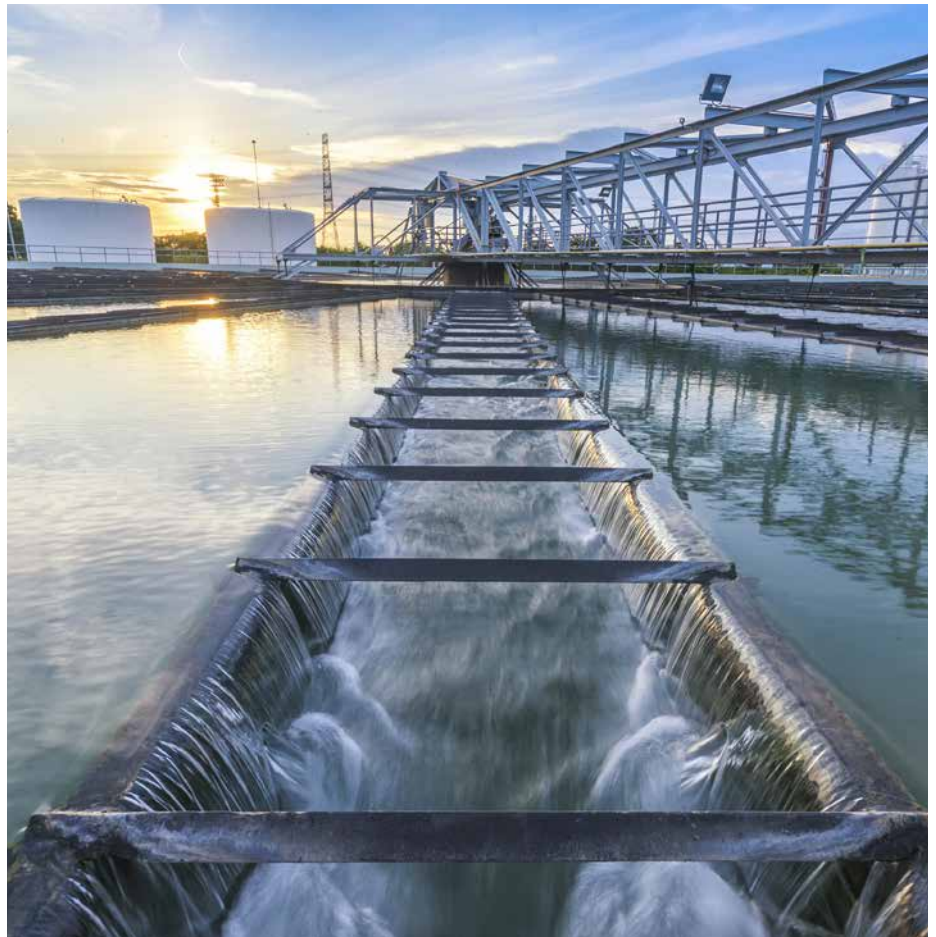


Rapid cure

VIP Liquishield containment systems provide instant curing properties resulting in very short return to service times providing industry with substantial down time cost savings.

Completely seamless

VIP Liquishield containment systems are completely seamless even across multiple substrate types eliminating joint welding and gluing providing faster application, faster return to service and many years of trouble free performance.





Excellent bonding to substrates

VIP Liquishield containment systems exhibit high bond strength to correctly prepared substrates. In most cases the bond strength is greater than the pull off strength of the substrate itself.



Chemical, UV and abrasion resistant

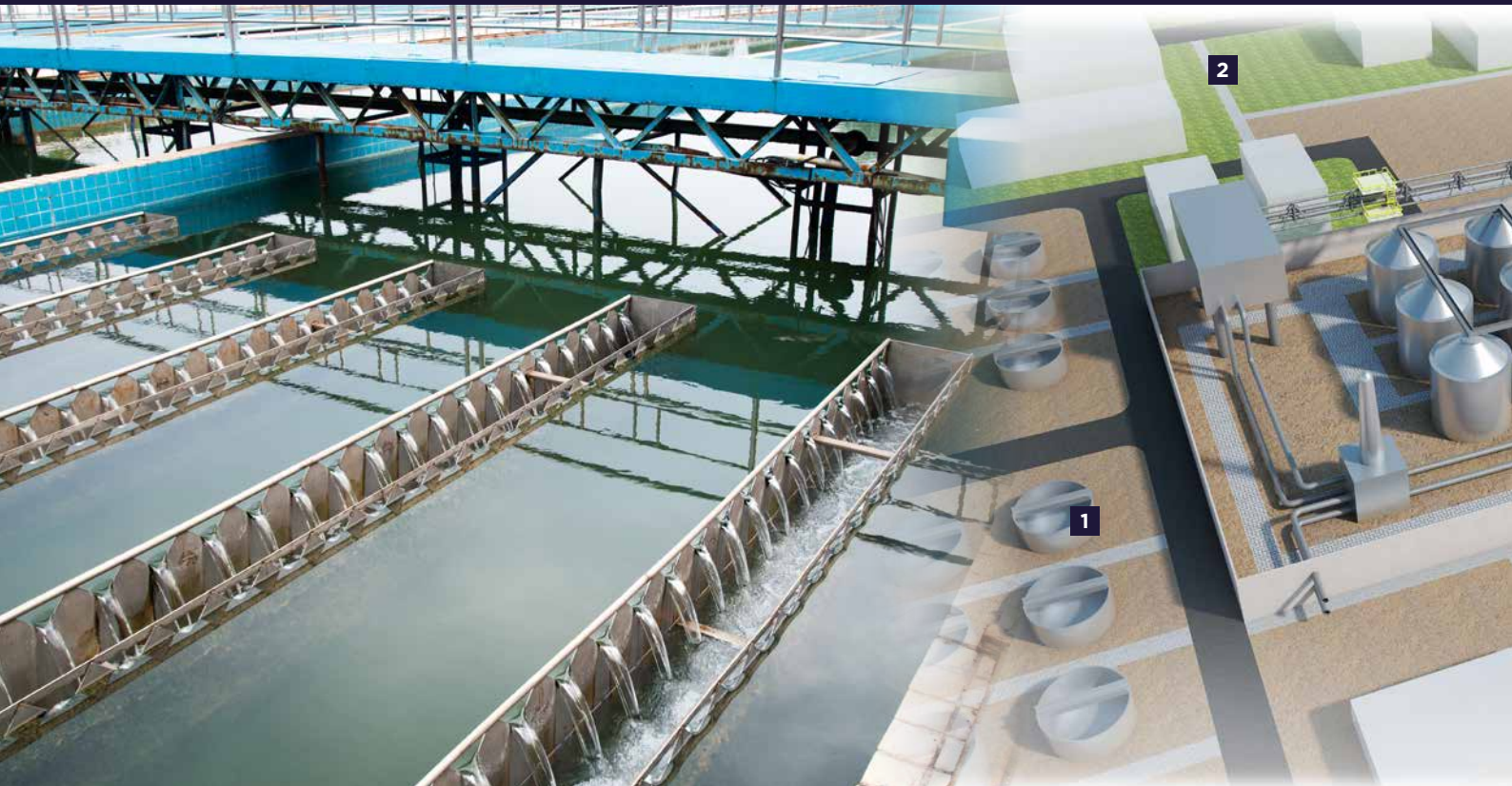
VIP Liquishield containment systems are designed to withstand large temperature variations making them suitable for application in both the coldest and hottest environments around the world. Excellent impact, abrasion and chemical resistance, coupled with a rapid, seamless instant curing application, results in significant cost savings over traditional rigid epoxy and FRP systems.



Successful track record in containment projects

VIP Liquishield containment systems have been successfully used around the world in many applications including desalination plants, potable water applications, fuel storage farms and chemical manufacturing plants.

LIQUISHIELD SYSTEM

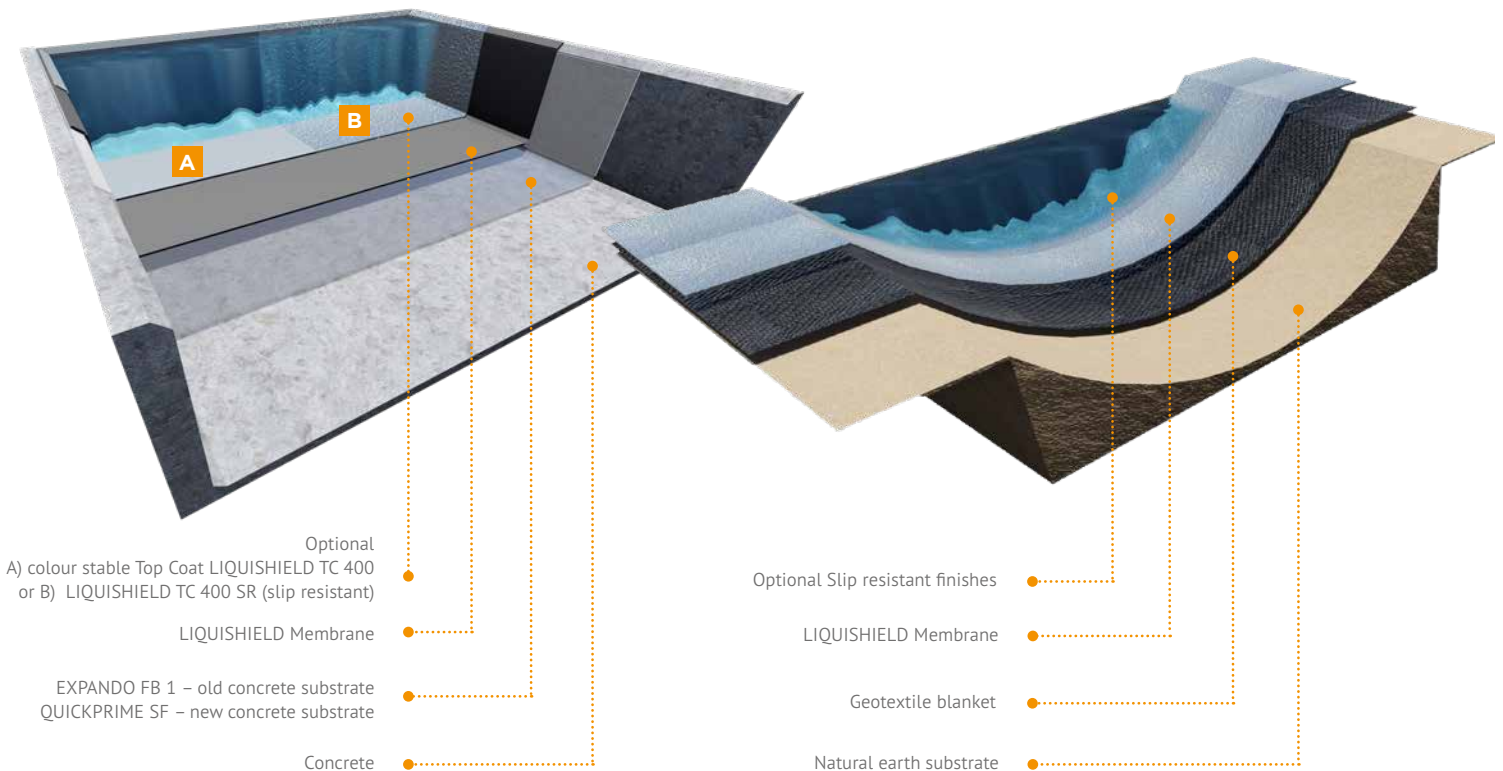


1 LIQUISHIELD Supreme

Chemical resistant liquid containment system with optional slip resistant surface finish.

2 LIQUISHIELD Geo

Liquid containment system using a formed earth substrate.



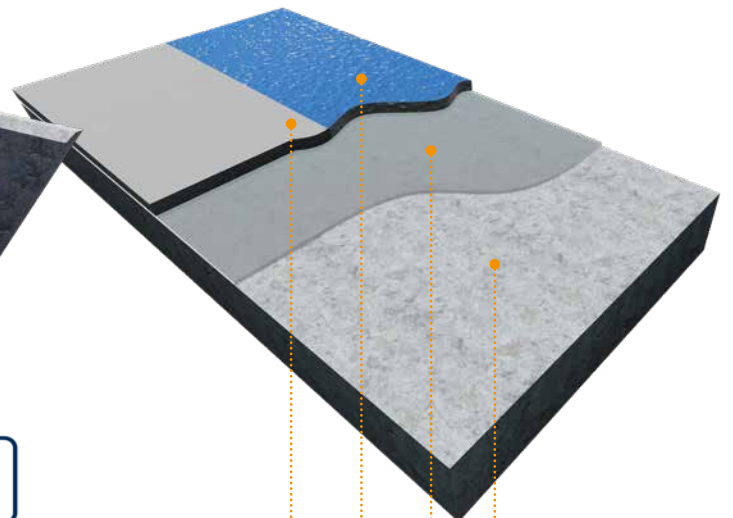
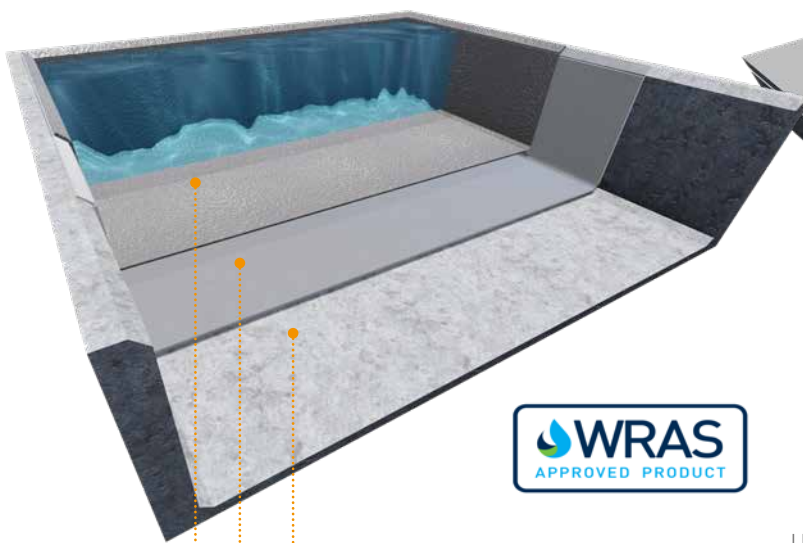


3 LIQUISHIELD Aqua

Potable water approved containment system applied to tanks, pipes and other drinking water storage vessels.

4 LIQUISHIELD Standard

System applied to concrete substrates.



- Concrete
- QUICKPRIME SF
- LIQUISHIELD Membrane
Potable water approved membrane

- LIQUISHIELD membrane
- Optional LIQUISHIELD TC 100 SR
with slip resistant finishes
- QUICKPRIME SF
- Concrete

LIQUISHIELD KEY FEATURES



High chemical resistance

- Resistant to most standard chemicals, acids, alkalies and fuel oil – Long term resistance against corrosion
- Excellent resistance against abrasion (Slurry tanks)
- Remains flexible over a large temperature range
- Completely resistant to Hydrogen Sulphides



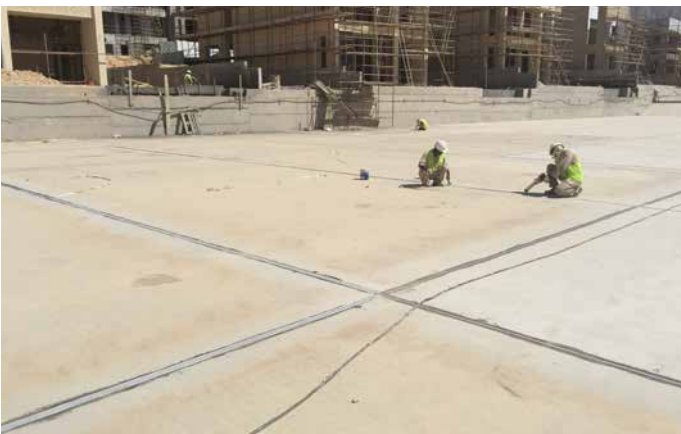
Excellent strength

- Very high tensile strength
- Very high impact and abrasion resistance
- Optimum resistance to high shear forces
- High crack bridging ability
- Resistant to tearing and root penetration
- Excellent elongation at break properties
- Seamless, flexible solution that will not crack or peel



100% volume solids

- Completely solvent free
- VOC free
- Potable water approved versions



Quickprep repair products

- A full range of fully compatible substrate repair products are provided as part of the VIP Quickprep range
- Crack injection and filling materials can be overlaid within 10minutes

LINING SYSTEM RANGE

VIPSHIELD

Combo roofing system

RAPIDECK

Car park decking system

LIQUISHIELD

Fluid containment & lining

LEISURELINE

Lagoons & waterparks

SUBSEAL

Substructure waterproofing

QUICKPREP

Substrate repair & repair

LIQUISHIELD PROJECT REFERENCES

DUBAI SEWERAGE TREATMENT PLANT



The Dubai Municipality's new mega sewerage treatment plant was built in order to cater for the growing population of Dubai. Such a huge investment in public infrastructure must be protected to ensure the design life expectations can be met.

The Dubai mega sewer plant required 75.000 m² of concrete surfaces to be protected against raw sewerage and processed waste water. The proposed solution had to be able to handle substrate movement, impact, abrasion and chemical attack.

VIP's Liquishield standard spray applied lining solution met all the requirements and more.

VIP Technical Services supervised the application by a VIP Approved "Elite" application team ensuring a quality controlled application that met the strict specification and application schedule.



Client	Dubai Municipality
Contractor	-
Consultant	AECOM / BESIX
Coating Contractor	DELTA «Elite» applicators
Project	Lining of sedimentation tanks and digesters
Area	75.000 m ²
Construction Date	2018
VIP System	QuickPrep concrete repair systems VIP LiquiShield standard

WATER & POWER PROJECT, QATAR



Client	Ras Girtas Water & Power Projects
Contractor	Hyundai
Consultant	Parsons Brinckerhoff
Coating Contractor	HiTech Projects WLL
Project	Lining of Potable Water tanks
Area	29.000 m ²
Construction Date	2009
VIP System	QuickPrep concrete repair systems VIP LiquiShield Aqua – Potable water approved

This drinking water storage reservoir required a long term solution for the protection of the internal concrete structure. Curing and settling / stress cracks could provide an opportunity for water penetration into the concrete structure causing corrosion and eventually degradation of the concrete. Such an outcome would threaten the quality of the water and the integrity of the structure.

VIP provided a fully approved potable water lining solution that displayed excellent crack bridging properties, very high tensile strength, elongation and flexibility.

Being spray applied the lining solution was completely seamless removing the potential for problems at welded joints or rigid coating failures due to substrate cracking.

LIQUISHIELD PROJECT REFERENCES

SEA WATER DISCHARGE CULVERT, UAE



This seawater discharge culvert is located 250Km's from Abu Dhabi at the Borouge Plastics plant. The culvert was leaking and seawater was permeating into the plant and causing corrosion of the plants pipes and infrastructure support systems. Long term structural damage was being done to the concrete culvert as well.



Long term rectification of the problem was the first priority however minimizing the shutdown time was also a very high priority for the project engineers.



VIP Technical Services were approached in the early stages of the project to provide a solution that not only provided a long term fix for the concrete structure and the plant infrastructure but also a solution that minimized the shutdown time required. The entire project was successfully completed in just 11 days.

Client	Borouge Abu Dhabi
Contractor	Gogas / Granite Construction Co.
Consultant	Tebodin Middle East Ltd.
Coating Contractor	Petro Projects Group Est
Project	Sea water discharge culvert
Area	11.000 m ²
Construction Date	February 2013
VIP System	QuickPrep concrete repair systems VIP LiquiShield Standard.

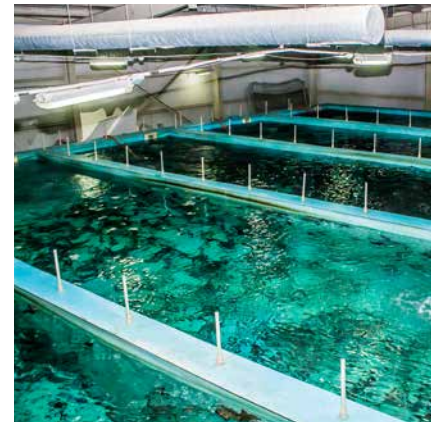
FISH FARMS, NORWAY



Following a failed lining project Nofitech contacted VIP Technical Services for a solution. VIP Technical Services visited the project site and assessed the problems before providing a solution.

Nofitech entrusted the surface protection of future fish farm constructions to VIP's potable water approved VIP LiquiShield Aqua ,a spray applied seamless, flexible lining exhibiting excellent crack bridging properties, elongation and tensile strength.

VIP Technical Services provided training and technical support services to Nofitech's own application team ensuring a quality application was completed every time.



Client	NOFITECH
Contractor	Norway
Consultant	NOFITECH Engineers
Coating Contractor	NOFITECH
Project	Lining system for Fishtanks (Potable water approval required)
Area	Various tanks between 3.500 and 4.500 m ²
Construction Date	2017
VIP System	QuickPrep concrete repair systems VIP LiquiShield Aqua – Potable water approved

LIQUISHIELD PROJECT REFERENCES

DESALINATION PLANT LIMASSOL, CYPRUS



This desalination plant in Cyprus required long term substrate protection against raw salty sea water in the primary collection tanks and a lining that was suitable for storing potable drinking water once the water had been desalinated and refined.

VIP's LiquiShield standard was used in all raw salt water tanks and LiquiShield Aqua (Potable water approved) was used in all desalinated processing and storage tanks.

VIP's solution of providing multiple product formulations to the project saved the customer money and yet still met all the project requirements of a very fast application, fast return to service and a long life time expectancy.



Client	Limassol Desalination Plant
Contractor	Polymer Group
Consultant	Bitelman Architects Ltd
Coating Contractor	Eco&Logi
Project	Lining of the sea water and potable water tanks
Area	3.000 m ²
Construction Date	2013
VIP System	QuickPrep concrete repair systems VIP LiquiShield Standard VIP LiquiShield Aqua – potable water approved

SEWERAGE TUNNEL, IRAN



Client	Water Authority
Contractor	Zharf Kar
Consultant	Mahab Ghodss
Coating Contractor	Anticor Limited, Dubai
Project	Refurbishment of old sewage tunnel
Area	90.000 m ²
Construction Date	2010
VIP System	QuickPrep concrete repair systems VIP's LiquiShield Standard



This 7 year old sewerage tunnel had badly degraded being fully exposed to sewer water with no substrate protection having been installed at the time of installation. Replacement was not an option.

In order for the pipe to have any hope of lasting its intended design life it needed a long term protective coating solution capable of bridging cracks and remaining flexible to handle future substrate movements. In addition the lining solution had to exhibit high abrasion resistance, high elongation at break properties and excellent tensile strength to handle substrate movements.

Despite the extreme operating environment the complete solution was installed from start to finish in 4 months and has been operating without any issues since 2010.

LIQUISHIELD PROJECT REFERENCES

SEWAGE TUNNELS LAHORE, PAKISTAN



The Water and Sewerage Authority of the Punjab province in Pakistan required a high performance lining solution to protect new under road sewage tunnels. The “cut and fill” construction method required an external coating that could provide impact protection against back filling operations and survive a life time buried under the road.

The internal substrates of the tunnel required protection against hydrogen sulphide attack and due to the very high silt levels in the sewer water the lining system had to exhibit very good abrasion protection as well.

VIP’s LiquiShield standard lining system met all these criteria and due to its excellent crack bridging properties and flexibility provided long term protection against substrate settling cracks.



Client	WASA (Water And Sewerage Authority- Punjab Govt.)
Location	Lahore, Punjab, Pakistan
Consultant	National Engineering Services Pakistan (Pvt) Limited (NESPAK)
Coating Contractor	AHT Services LLC, Dubai, UAE
Project	Internal and external lining of under road sewer tunnels
Area	26.000 m ²
Construction Date	2015
VIP System	QuickPrep concrete repair systems VIP LiquiShield Standard

FISHFARM, SCOTLAND



Marine Harvest a leading fish farming company required a tank lining system that would protect the internal tank surfaces, be easy to clean and provide a smooth surface that would not damage the fish.

VIP's LiquiShield Aqua lining system was chosen due to its potable water certifications, seamless spray applied application and due to its speed of application.

VIP Technical Services provided on-site technical support during the application process to ensure a high quality, within specification application was achieved.



Client	Marine Harvest
Location	Inchmore , Scotland
Consultant	Inhouse
Project	Lining system for Fishtanks (Potable water approval required)
Area	5000 m ²
Construction Date	2018
VIP System	QuickPrep concrete repair systems VIP LiquiShield Aqua – Potable water approved

VIP'S FAST TRACK COATING SOLUTIONS: TOUGH, SUSTAINABLE & COST EFFECTIVE.



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VIP is a leading solution provider of high performance surface protection systems. Our integrated system approach includes substrate repair and preparation products, priming and pre-treatment systems, high performance coatings and superior aesthetic finishes.



VIP Coatings International GmbH & Co. KG
Rudolf-Diesel-Straße 11 · D-86551 Aichach · Germany
Phone +49 (0)8251 90475 - 0 · Fax +49 (0)8251 90475 - 99
www.vipcoatings-intl.com



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WWW.VIPCOATINGS-INTL.COM