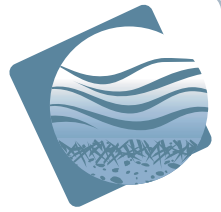




At the Lab. In the Field.
By Your Side.

ODLINS BUILDING

Wellington Waterfront, New Zealand
Winter 2005



CONCRETE
WATERPROOFING

QUESTIONS: 1-800-267-8280 or www.kryton.com

BACKGROUND

Wellington (New Zealand's capital) is situated alongside Wellington Harbour and is home to many museums, theatres and arts festivals and is a leading centre for creative industries, such as film and computer technology. It is also the new location for the New Zealand Stock Exchange (NZX) which is situated inside the historic Odlins building in the business district's waterfront.

Originally built on reclaimed land (allowing the railway to be extended in 1893) in 1907, the Odlins building was home for C&A Odlin Timber and Hardware Co. It was once situated right next to the water and among the interiors impressive features are two huge timber trusses spanning the width of the attic floor. In 2001, plans began to retrofit one floor of apartments, four floors of office space, a ground floor retail area and a basement car park inside the heritage four-storey building.

The biggest challenge faced by both the contractors (LT McGuinness) and architects/engineers (Athfield Architects, Dunning Thornton) was that the Odlins building was older, bigger, wetter and more rotten than most. "...there has been a lot of interest to see what we do to keep the heritage elements, and also modernize it..." says LT McGuinness.

Structural work and repair began on the building in January 2004, and once frame work to support the building was complete, work on the basement began. Contractors were literally swimming since the basement was submerged under 1.5m of water. An additional challenge to this was because construction was below sea level and required meticulous planning in dealing with tides.



Above Left: Odlins building before construction.

Above Right: An artist rendering of the Odlins building.



Above: The biggest challenge faced by both the contractors ... was that the Odlins building was older, bigger, wetter and more rotten than most.

Below: Contractors were literally swimming since the basement was submerged under 1.5m of water.



PROJECT CASE STUDY

The Kryton Group of Companies.

1645 East Kent Avenue, Vancouver, BC Canada V5P 2S8 Tel.: 1-604-324-8280 Toll Free: 1-800-267-8280 Fax: 1-604-324-8899 E-mail: info@kryton.com Web: www.kryton.com

ODLINS BUILDING

Wellington Waterfront, New Zealand

SOLUTION

To ensure the building's new parking garage would remain leak-free, LT McGuinness needed a concrete waterproofing solution that would provide a watertight resistance to hydrostatic pressure and could also protect against ingress of tidal pressure. McGuinness looked to Fraser Brown & Stratmore Limited for a crystalline waterproofing solution. Technical Sales Manager, Jeremy Mallender recommended Kryton's Krystol™ waterproofing system.

Kryton's Krystol™ Internal Membrane (KIM™) was used because of its resistance to both tidal waters and hydrostatic pressure from any direction. Tests have shown that "Krystolized" concrete can hold back hydrostatic pressure with up to 140 metres/460 feet of water head pressure.

When added to a concrete mix or applied to existing concrete, Krystol™ creates a chemical reaction that causes needle-like crystals to grow, filling the spaces between concrete particles and permanently blocking the movement of water in all directions. If small cracks later form, incoming water causes additional crystals to grow, self-sealing the cracks and stopping the movement of water through the concrete. The Krystol™ crack repair system (Krystol™ T1/T2) was also used to stop leaks in areas of the basement where KIM™ had not been used.

Six months have passed since the Odlins building's completion in June 2005. Today it remains an historical and iconic reminder of the past, resurrected and leak-free.

"...Krystol™ Internal Membrane (KIM™) was used because of its resistance to both tidal waters and hydrostatic pressure from any direction".



Above: Before and after pictures of the Odlins building.

LOCATION

Wellington Waterfront, New Zealand

ARCHITECT & ENGINEER

Athfield Architects, Dunning Thornton Engineering

CONTRACTOR/APPLICATOR

LT McGuinness Limited

KRYTON DISTRIBUTOR

Fraser Brown & Stratmore Limited

The Kryton Group of Companies.

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A.K. Varma
Chief Executive Officer

Kryton Buildmat Co. Pvt. Ltd.

Project Case Study for Krystalline waterproofing

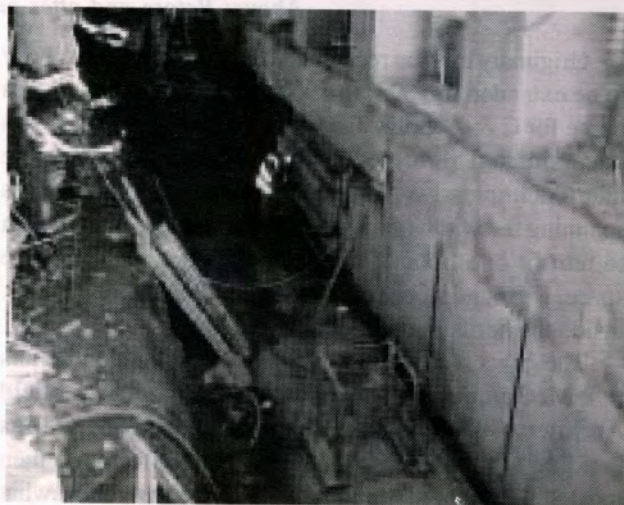
Concreting waterproofing products from Kryton Buildmat Co. Pvt. Ltd. have a unique crystal forming property that provides long-term protection for building and other structures by waterproofing concrete from inside out.

KRYTON BUILDMAT CO. Pvt. Ltd. wholly subsidiary of Kyton Holding Inc. (KHI) Canada is manufacturing and supplying concreting waterproofing products based on the latest crystalline technology. These products (Admixture or Surface Applied System) have a unique **Crystal Forming** property that provides long-term protection for building and other structures by waterproofing concrete from inside out. The high-growth component of the product reacts with water and unhydrated cement particles in concrete to form millions of needle-like crystals. These crystals grow and migrate through the concrete to fill in hair-thin pores and microscopic voids that would otherwise serve as passage for harmful moisture.

Case Study

Challenge : Wellington (New Zealand's capital) is situated alongside Wellington Harbour and is home to many museums, theatres and arts festivals and is a leading center for creative industries, such as film and

computer technology. It is also the new location for the New Zealand Stock Exchange (NZX), which is situated inside the historic Odlins building in the business district's waterfront.



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Location

Wellington Waterfront, New Zealand

Contractor/Applicator

LT McGuinness Limited

Architect & Engineer

Athfield Architects, Dunning Thornton Engineering

Kryton Distributor

Fraser Brown & Stratmore Limited

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