



**Press Release**  
**May 18<sup>th</sup> 2017**

## **Delta Membrane Systems winner of PCA Sustainability Award**

***Delta Membrane Systems Limited is the proud winner of the Property Care Association, Property Care Innovation and Sustainability Award 2017. The award was presented at the PCA Annual Conference for Delta Membranes' submission on the flood resilient house.***

In 2016 when David J Symes, Technical Director of Delta Membrane Systems, (a PCA member), joined a focus group of experts across many disciplines under The Property Flood Resilience Action Plan, an umbrella headed by Dr Peter Bonfield OBE, Chairman, no-one could have envisaged how the project would progress.

Avenues were explored to tackle flooding and flood resilience. Within the focus group were various experts allowing for a cross section of knowledge, those included Stephen Garvin, Director of the BRE Centre for Resilience, Clare Moriarty (Permanent Secretary, DEFRA), Emma Howard Boyd (Chair, Environment Agency), Gareth Howell (Managing Director, Direct & Retail Partnership, AXA Insurance) and Stephen Hodgson CEO (of the PCA) to name but a few.



The concept to join forces to find ways to prevent flood damage and ways to combat the devastation caused by flooding and to ultimately help families "get back in sooner".

Delta Membrane Systems' Technical Director, David J Symes, produced a specification using tried and tested technology Delta Membrane Systems has used for many years, historically in basement or below ground structures/situations with consideration as to how we could adapt these products to work in flood situations.

With every scenario considered, a scheme was developed utilising a Delta Membrane System's wall membrane "Delta MS500" and Delta floor membrane "Delta MS20" with a Delta sump and pump system (a Delta Dual V3 sump), with high level alarm "AlertMaxx" and a battery back-up "PowerMaxx", part of the Delta Maxx family.



Flood water entering a home causing extensive damage to the fabric of the building can lead to insurers appointing a loss adjuster to assess the extent of the damage and the claim. The strip out following with the implementation of dehumidifiers to dry out the structure, (a process which takes numerous months) and insurers bear huge financial costs. The financial burden not just with the structural repairs but also in providing alternative accommodation for their families left homeless.



In order to significantly reduce downtime, a Delta membrane can be fitted to the walls as demonstrated within the BRE test house. The Delta membrane is a HDPE extruded sheet, "its dimpled" and therefore provides an immediate barrier against the effects of salts and contamination caused by water ingress and or flood water allowing fast track reinstatement at the same time allowing the wall to dry out. Similarly when a solid floor is constructed; an overlay with Delta MS20 also demonstrated in the BRE test house which is a 20mm extruded sheet prior to the inclusion of finishes such as insulation and screed. In short the walls and floor have been lined with a cavity drain membrane which provides an air gap.

Secondly, David suggested making the structure more resilient by installing a Delta perimeter drainage channel rebated into the floor, this deals with and ground water which may rise through the floor in the future, or through the walls behind the MS 500, the drainage channel collects the water from beneath and behind the membranes and immediately evacuates it to the Delta packaged pump station which houses two submersible pumps, the lower end of the spectrum Delta pump will evacuate 2 litres per second per pump so a total of 240 litres per minute, we can offer alternative pumps that will evacuate 6 litres per second each.

A further modification, David instructed was a standard 110mm pipe to be laid within the slab and turned up 90 degrees to provide drainage outlets which finish flush with the floor finishes, which can be located in unobtrusive locations covered with a floor grill, as installed in the BRE flood house.

This was designed to pick up water that may bypass flood gates which should be installed in conjunction with the system and immediately evacuate it reducing damage, floors are typically tiles in floor mapped areas after flooding to reduce damage and other products can be installed such as waterproof insulation and plasterboard and screeds.

The Delta system can be installed both into existing properties and in new construction. As with below ground waterproofing, each design is bespoke to the property and each associated risk.

The BRE has successfully demonstrated the resilience and resistance of the flood house. The Flood Resilience House is a great success and the foundation for incorporating these measures in our homes has been laid.

Congratulations to all at Delta, special thanks to David J Symes, Rachel Munro and Georgia Burbridge for their contribution to this great project.

## **Ends**

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