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STORAGE DAM

EVAPORATION CONTROL

CRC Irrigation Futures, National Program for Sustainable Irrigation

Continuous Plastic Covers

Technology being further developed for large storages

85-100% reduction in evaporation demonstrated

Floating covers in general act as an impermeable barrier that floats on the water surface to reduce evaporation. Many different materials have been trialled in the past including wax, foam and polystyrene, but polyethylene plastic has proved to be the most satisfactory and durable material for covers of this type.

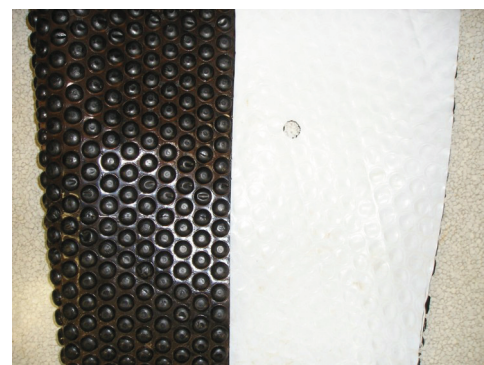
The photograph below was taken from the air and shows a newly installed Evaporation Control Systems E-VapCaps™ product covering a 4ha dam near St. George.



The plastic material consists of a unique, multi-layered, polyethylene membrane 540 microns in thickness.

The material contains buoyancy cells, similar to bubble wrap or existing swimming pool cover products, but is made from much tougher material to resist degradation from sunlight.

An important aspect is the installation method and method used to build into the embankment.



The multi-layering of the E-VapCaps™ product enables it to reflect some of the sun's heat as the top of the material is white, while the under layers are black, completely eliminating the transmission of light to the water underneath. Holes in the plastic allow rainfall to infiltrate below the cover.

The material is environmentally safe – the polyethylene used is commonly used in food packaging and storing and can be recycled at the end of its usefulness as a cover, whenever that may be. Tests have demonstrated that when well managed it is over 95% effective in reducing evaporation from open storages.

The product can be deployed in sections on large dams

There are now a large number of covers that have been installed on water storages across Australia.

