



WASTEWATER

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Not just a ball but a solution to a problem

For many municipal water and wastewater applications, ECC provides not just a ball, but a solution to a problem. Most of our successful installations have resulted from working closely with customers, sharing our ideas and experience and tailoring a solution to meet their specific requirements.

ECC floating ball blankets provide highly effective solutions to difficult water and wastewater storage problems for municipal utilities. By placing a sufficient quantity of hollow plastic balls onto the surface of a liquid, the balls automatically arrange themselves into a close packed formation over 91% of the surface area. This high surface coverage provides an extremely effective barrier and significantly reduces the mass and heat transfer mechanisms operating between the liquid and surrounding environment. The hollow plastic balls will form a floating cover for ponds, tanks, lagoons, and other basins.

The hollow balls offer a very low conductivity that results in a extremely effective thermal insulation barrier.

With levels always moving the ECC floating ball covers will rise and fall with fluctuating water levels in tanks and reservoirs. When water levels fall the balls will double stack until the level rises again and the cover will automatically spread into a single layer of coverage.





Innovative Applications for ECC Hollow Plastic Balls Include:

- Algae Control
- Ammonia Reduction
- Bird Control
- Evaporation Control
- Municipal Water & Wastewater Reservoirs
- Odor Control
- Storm Water Management





ECC has more than 30 years experience in the design and distribution of hollow balls. More than 45,000,000 balls have been delivered as floating covers.

Advantages of ECC Shade Balls:

ECC Balls provide several advantages over other cover systems:

- Reduction of liquid loss through evaporation by up to 90%
- Reduced chemical consumption
- Improved working environments
- Allows movement of equipment through the liquid
- Eliminates algae and weeds by blocking the Sunlight UV rays.
- The balls spread automatically as the liquid levels rise and fall
- Reduced heat loss helps to maintain biological reactions during cold weather
- Rain water is not a problem. Unlike solid covers, the balls allow rain water to pass directly into the basin. There is no opportunity for ponding to occur.
- Quick and simple to install; installation is as simple as pouring the balls into the tank or reservoirs.
- The balls naturally assume equal distribution
- Immediate solution to odor problems
- Virtually maintenance free







Ball Diameter and Surface Coverage

The percentage of area covered by the balls is independent of the ball diameter, being the ratio of a circle to the hexagon which surrounds it. This equates to 91% of the liquid surface area. The frictional contact points ensure that each ball remains stable when subjected to increased liquid or air turbulence.



Liquid Loss Savings Cover

(w) 4" balls

(w/o)

From Water at these temps F	Evaporation loss in quarts / ft2 h	Evaporation loss in quarts / ft2 h
70	.05	.2
90	.14	.56
125	.49	1.96
160	1.28	5.12

Testing is per sq. ft. of open surface per hour:



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