

Revolutionizing Aquaculture Supplement Products with Water-Soluble Packaging Film



CASE STUDY



Pioneers in Sustainable Packaging

At Arrow Greentech Ltd., sustainability and innovation have been at the heart of our journey since 1992. With a sharp focus on pioneering water-soluble film technologies, we deliver high-quality, specialised solutions that redefine flexible packaging. Today, we stand as a global leader, serving industries such as health, FMCG, hygiene, packaging, printing, and security with our cutting-edge soluble film solutions.

Watersol™ – Sustainable Horizons, Infinite possibilities.

WATERSOL™ excels in delivering innovative, sustainable packaging solutions. We specialize in the production and distribution of water-soluble films. Our advanced water-soluble PVA films cater to businesses seeking user safety & convenience, eco-friendliness and efficient alternatives.

Driven by our innovation and sustainability philosophy, and our state-of-the-art R&D facilities, we continuously surprise the markets with innovations. Some of the applications of our films are:

- **Packaging:** It is extensively used for unit-dose packaging of detergents, agrochemicals, Construction fibres, Construction chemicals, and dyes.
- **Industrial:** Industrial uses of PVA film include mould release applications, paper bag or sack liner applications, infection control laundry bags, and various other use cases.
- **Textiles:** Used in embroidered garment production, as water-soluble backing materials which dissolve completely in water.
- **Consumer Goods:** Water-soluble film can be a great primary packing tool used to make unit-dose pouches, pods, capsules, and sachets for various consumer (FMCG) products. It is used to make pouches for laundry detergents, dishwashing liquids, toilet cleaner blocks, and other household cleaning products. It provides a convenient and hassle-free solution for packaging liquid and powder detergents.



Client Overview:

A leading aquaculture nutrition company specializing in fish supplements that boost health, immunity, and growth, sought to align its packaging with its sustainability vision. The company faced challenges with traditional plastic-based supplement packaging, which contributed to environmental waste and increased handling efforts for fish farmers.

Key Challenges:



Environmental Impact – Plastic waste conflicted with the company's sustainability goals.



Complex Handling – Manual measurement increased labour costs and contamination risks.



Customer Convenience – Fish farmers sought a mess-free, easy-to-use dosing solution.



Material Waste – Losses during handling reduced efficiency and profitability



Implementation



Custom PVA-based water-soluble film developed for safe and an effective supplement



Pre-portioned sachets designed for accurate and effortless dosing.



Rigorous testing ensured film compatibility across varied water conditions.



Product launched with key aquaculture clients to validate efficiency.

Impact & Results:

- Elimination of Plastic Waste – Replaced traditional plastic packaging with a sustainable alternative.
- Reduction in Labour Costs – Automated dosing cuts down manual handling and preparation time.
- Improved Fish Health – Consistent supplement intake led to 15% better fish growth rates.
- Rapid Market Adoption – The brand achieved instant success and widespread customer acceptance.
- The company gained an additional USP, which they effectively leveraged in marketing and sales.

Shaping The Future Of Packaging

This case study highlights the transformational impact of water-soluble films in fish supplement packaging. The shift to biodegradable, pre-measured sachets has set a new industry benchmark for efficiency, sustainability, and convenience.



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