



## Case Study

# Laundry: DB Packaging

## Background

### Our Client

DB Packaging is an eco packaging supplier, delivering innovative and environmentally sustainable packaging solutions across Australia and New Zealand.

### The Brief

Supplying laundry bags to hotels, hospitals and care homes, DB Packaging approached Aquapak as they wanted an eco version that would:

- retain the strength, puncture resistance, barrier properties and durability of traditional laundry bags
- reduce the requirement for incineration and therefore increase the reuse of bed linen
- remove the process of removing laundry from bags before washing
- negate the occupational health and safety risks when there is heavily soiled, infectious or cytotoxic contents.

## The Packaging Solution

### Polymer Used

Hot water soluble (HWS) Hydropol™ has been specifically formulated for blown film and ideal for the manufacture of laundry bags.

### Collaborative Approach

Aquapak supported DB Packaging's supplier, Advent in their trials of the HWS Hydropol™ in the manufacture of laundry and cytotoxic bags.

### Impact

The new bags can be used to contain dirty or contaminated laundry. They can be put directly into washing machines to prevent direct contact. As the bags dissolve safely in hot water, there is no plastic residue to dispose or to potentially cause machine breakdown. This packaging is expected to eliminate 100 metric tons of plastic across Australia by the end of 2020.

## Technical Summary\*

**Barrier Properties** – HWS Hydropol™ has high resistance to animal, mineral and vegetable oils, aliphatic and aromatic hydrocarbons, ethers, esters and ketones. They also offer excellent barriers to Oxygen.

**Non-Toxic** – HWS Hydropol™ is non-toxic and all raw materials are listed as approved as direct food additives and food contact by EU and US regulatory listings.

**Biodegradable** – HWS Hydropol™ is inherently biodegradable. Biodegradation has been observed by at least 20 different genera of bacteria and several yeasts and moulds which occur in activated sludge, compost, facultative ponds, landfills, anaerobic digesters and septic systems and in natural soil and aquatic environments. Sturm (aquatic) biodegradation tests show that the formulations degrade in the presence of activated sewage sludge at a similar rate to cellulose. Testing for Composability and Anaerobic Digestion is ongoing.

**Marine Safe** – HWS Hydropol™ has shown no ecotoxicological effect in Marine environments according to ASTM D6691.

**Anti-Static** – Due to their high hydroxyl group content and hygroscopicity, Hydropol™ compounds are inherently static dissipative, similar to cellophane, and cause little frictional static charging. Surface resistivities are in the range of 105–106 ohms/m2.

*\*please see Hydropol™ 30124 Technical Data sheet for complete details*

## Client feedback

"I have been privileged to partner with Aquapak on this journey to bring Hydropol™ to the Australian and New Zealand market. Hydropol™ is already changing the medical arena and will continue change how we handle our waste. The consumer can use Hydropol™ to eliminate their waste. There are many applications for this material but the real winner is the Environment, as the material is water soluble, non-toxic and marine safe."

**David Beaver, Director DB Packaging**