



## **A functional environmentally safe plastic, designed for the circular economy**

**Aquapak's Hydropol™ is a specially engineered material that can create a range of packaging products that are designed to eliminate plastic pollution at source**

### **Hydropol™ is a Good Plastic**

A plastic is simply any material that can be moulded into shape whilst soft, which then sets into a rigid or elastic form. They can be made of natural or synthetic materials.

Many commonly used plastics are hydrophobic (water hating). This hydrophobic property causes issues in the environment by attracting often hazardous and toxic products to them; products such as pesticide residues etc. are also hydrophobic.

Hydropol™ does not contain any hydrophobic material including; Polypropylene (PP), Polyethylene (PE), Polystyrene (PS), Polyvinylchloride (PVC) or Polyethylene Terephthalate (PET).

Hydropol™ is a hydrophilic (water loving) polymer. Depending on the environment, Hydropol™ in solid form may break down to small particles but without the formation of toxins or the subsequent absorption of toxins associated with traditional plastics. These small particles will not persist in the environment unlike conventional plastics whose long lasting hydrophobic micro-particles absorb and concentrate toxins. When in solution Hydropol cannot form microplastics. Microplastics are simply small pieces of plastic, defined in 2009 as "plastic particles smaller than 5mm in size".

A handwritten signature in black ink, appearing to read "E. Smith".

**Dr Elizabeth Smith**  
Technical Manager