



Union Papertech has developed a fully biodegradable heat seal filter paper for tea bags, which has enabled Tata Global Beverages to eliminate its micro-plastic pollution.

THE CONTEXT

Tata Global Beverages's (TGB) existing heat seal filter paper for tea bags uses around 25% polypropylene plastic, which is not biodegradable and causes micro-plastic pollution. This was brought to public attention in December 2017 when the British Broadcasting Corporation (BBC) aired its documentary, Blue Planet II. Following this, TGB was implicated in a public petition in the UK in early 2018, which challenged the company to eliminate plastic from its tea bags.

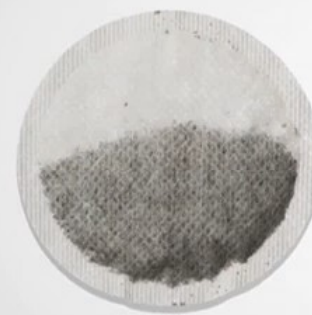
THE INNOVATION

Union Papertech, which is part of the Purico Group in UK, has developed a 100% biodegradable heat seal filter paper, Puri Seal Green, to help TGB overcome the problem. The new paper uses bio-plastic made from vegetable starch, which allows TGB's customers to close the loop in the waste stream, effectively resulting in zero plastic pollution from tea bags. Union Papertech has also endeavoured to make plug-and-play filter paper so that TGB can use it on its existing machinery and does not have to incur any capital expenditure on new machines or on changes in its production line.

KEY CHALLENGE

TO FIND A SUITABLE REPLACEMENT FOR POLYPROPYLENE

This was difficult as bio-plastics have different performance characteristics. To add to it, TGB's machines had their own limitations, making it difficult to use an existing green product. Hence, the Union Papertech team worked closely with TGB to engineer a product that could perform under varying conditions. The result was Puri Seal Green, a 100% biodegradable heat seal filter paper.



THE IMPACT

Based upon TGB's current annual consumption of filter paper, TGB will reduce its plastic pollution by around 25 metric tonnes per year once it achieves full adoption of the 100% biodegradable filter paper. By being compatible with its existing machines, the innovation has also enabled TGB to save on any costs that it would have otherwise incurred on new machinery or changes in its infrastructure.