

# DeltaMax™ Performance Modifiers

## Incorporating more PCR Polypropylene

CASE STUDY

**CUSTOMER NEED :** A polypropylene septic chamber manufacturer is attempting to incorporate more post-consumer recycled content into their current rPP resin formulation to increase the volume of recycled raw materials and help to meet their corporate sustainability goals.



### CURRENT SITUATION

Post-industrial recycled polypropylene is easy to process, but availability is declining. Further, post-consumer polypropylene is more difficult to source and contamination leads to poor physical properties.

To meet increasing demand for post-consumer recycled material, our customer has identified a source to blend with existing recovered resin. However, traditional treatment of the poor melt flow associated with post-consumer recycled materials can lead to the creation of brittle parts, manufacturing defects and loss in productivity (cycle time).

In order to make use of this difficult to manage PCR stream, melt flow modification is required to meet product specifications, maintain operational efficiencies and improve the availability of raw materials to meet demand.

### MILLIKEN SOLUTION

DeltaMax m100 Melt Flow Modifier allows injection molders to improve the melt flow of post-consumer recycled polypropylene, while maintaining acceptable impact properties.

### RESULTS

Using DeltaMax m100 Melt Flow Modifier at 1.5% LDR enabled our customer to boost melt flow properties of the PCR polypropylene to equal to or better than existing resin formulations. By incorporating PCR with DeltaMax m100 into existing PP formulation, our customer was able to maintain product specifications and operational efficiencies.



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