

# Food-grade rPET resin advances at Extrupet

IN October 2009, Extrupet commenced commercial sales of its rPET resin (also referred to as bottle-to-bottle or B2B PET resin). Manufactured from industrial and post-consumer waste, the first of its kind on the African continent, this development has been well received by the food and beverage industry (PPM Festive 10, p51).

Extrupet has now announced that its Erema rPET Vacurema Basic line has been upgraded to a Vacurema Advanced operation, increasing the Intrinsic Viscosity (IV) of the resin (which is a measure of polymer strength) to a standard 0,75. The line also has the ability to produce a 0,80 IV, ultimately allowing for 100% use of rPET resin in certain packs.

Erema's Vacurema technology revolves around proprietary 'super-clean' processes. At the heart of the process is a reactor in which flakes are placed for a specified time and temperature under vacuum. As contaminants migrate into PET during its life cycle, the super-clean process removes any volatiles present and converts it to a food-grade standard.

High demand for food-grade rPET is currently being driven by its environmental status – using rPET reduces CO<sub>2</sub> emissions and cuts dependence on oil stocks used to make virgin plastic – and Extrupet is the first recycler in the world to be awarded the prestigious BRC (British Retail Consortium) Level 1 accreditation. Nominal discounts at which some grades of the B2B resin are sold compared to virgin PET resin, are also key purchase drivers. Extrupet's plant capacity currently allows for a production of around 500 tons/month of the B2B resin and expansion to an output of 1 000 tons/month is already on the cards.

It took Extrupet some time to investigate the necessary equipment/plant upgrades and legislative hurdles. There is no legislation in South Africa for the use of recycled material in packaging beyond a general provision that packaging should be free from contaminants detrimental to the product or the consumer. However, local authorities do require products to meet US Food & Drug Administration standards, and Austrian company, Erema, has provided the specialised technology used in the production of the Extrupet's B2B resin to realise full compliance.

The B2B resin produced using the Vacurema technology has also undergone rigorous third party testing by international bodies such as the Fraunhofer Institute in Germany and PIRA in the UK. On the local front, leading South African retailer, Woolworths, is already driving the use of food-grade PET packaging products, with its range of sandwich



Woolworths is already paving the way for food grade rPET packaging, produced by Extrupet's Vacurema Advanced rPET line.

PLASTICS IN PACKAGING

packs, and ultimately its PET bottle packaging, and this important endorsement, along with Extrupet's Advanced production rating, paves the way for many new opportunities in the food and beverage markets for Extrupet.

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## Reducing the Carbon Footprint

Extrupet's USFDA approved "food grade" rPET polymer for food packaging.



ISO 9001  
BUREAU VERITAS  
Certification



Now BRC certified & ISO 9001 compliant.



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