



# MASSMART GROUP UPDATE

MASSMART



## PACKAGING RATIONALISATION

*a key focus for Massmart*

*Waste minimisation is an important part of Massmart's sustainability goals. Packaging rationalisation, which focuses on optimising packaging, presents an opportunity to not only improve product safety, but also reduce costs and increase product recyclability.*

The Packaging Council of South Africa (PACSA) reports that South Africans generate about 520 million tons of solid waste per annum. Ninety-five percent of this waste is deposited on land, either in open trenches or in one of 1,200 landfill sites across the country (Massmart Annual Report 2011). Currently South Africa is faced with a shortage of landfill space which could have a significant impact on our country's capacity to manage waste in the future. The Waste Management Act of 2008 provides standards and guidelines for regulating waste. One of the most significant aspects of this Act in terms of business is that of extended producer responsibility (EPR) which requires South African manufacturers and retailers to, among other things, take greater responsibility for the waste produced as a result of their operations.

### *Packaging and waste*

After recycling, packaging contributes a much smaller component of waste to landfill than generally believed, making up approximately 6% of the waste sent to landfill each year and roughly 8% of the final product's carbon footprint (PACSA 2010). However, despite its relatively small contribution to the overall waste stream, packaging is significant from a consumer goods perspective as it plays a fundamental role in protecting, preserving and transporting products. Packaging also enhances the attractiveness of products, along with providing consumers with vital information on the product's contents. Because approximately three quarters of all finished goods require some form of packaging, packaging rationalisation ensures that packaging is designed in a way that maximises product safety and minimises environmental impact (<http://ohioline.osu.edu/cd-fact/0134.html>). Packaging rationalisation involves optimising packaging with four primary considerations in mind: safety, cost, sustainability and recyclability.

### *Walmart's approach to packaging*

Packaging is an important part of Walmart's sustainability goals. By 2025 the company aims to be packaging neutral globally and to have eliminated landfill waste in their operations in the United States. In the short term, the company aims to reduce packaging by 5% globally by 2013. One of the outcomes of Walmart's focus on rethinking processes and product presentation was the elimination of more than one billion feet of wire ties from their toy packaging in 2011 (<http://corporate.walmart.com>).

### *Guidelines for packaging rationalisation*

Massmart is aware that even minor changes in packaging can have a significant impact on product safety, cost and sustainability. In terms of product safety, considerations include ensuring packaging of potentially harmful products is child resistant; making provision for tamper evidence mechanisms and guaranteeing accurate and detailed product labelling. In terms of cost and sustainability, a myriad of factors play a role, such as packaging type, weight, design and recyclability. For example, by simply adding or removing chemicals and colours the recyclability and cost of packaging can be considerably impacted. Furthermore, changing the shape of a package can significantly improve transportation and logistics efficiency. This is something that Walmart has done with great success in many of its private label brands. For Massmart, packaging recyclability is also a priority. Ultimately, by increasing the proportion of packaging that can be successfully recovered and recycled, the volume of waste that is discarded to landfill can be substantially reduced. Packaging can be made more recyclable through the removal of biodegradable additives and unnecessary colours. In addition, the displaying of polymer codes enables easy identification and separation of plastics.

# PACKAGING RATIONALISATION

## *workshop with Astrapak*

In early 2012, Massmart conducted a packaging rationalisation workshop, facilitated by Astrapak, which focused specifically on plastics in private label product packaging. This workshop looked at factors that govern packaging type and design; examined the considerations which go into improving packaging; and identified the opportunities associated with packaging rationalisation. In addition, case studies from Walmart were used to demonstrate a variety of packaging rationalisation successes. Most importantly, a step-by-step packaging methodology was defined and applied to local products currently supplied by Massmart's divisions. This methodology identified three primary drivers, namely form and function, economy of design and resource recovery. ▼

### *Form and function*

The first driver addresses the need for packaging to balance both form and function. Packaging needs to appeal to consumers while at the same time protect the product's contents from light, heat, micro-organisms, damage in transport and spoilage. Packaging should also be pilfer and tamper resistant and key information about the safe disposal, storage and recyclability of a product's packaging should be provided. Additionally, the cost of different polymer types should be assessed when deciding on packaging. The type of polymer chosen should also have the correct barrier properties for the contents it holds (Design for Sustainability with Plastics, Issue 4, compiled by PAICA).

### *Economy of design*

The second key driver relates to informed design and the role it plays in improving the sustainability and recyclability of packaging. Packaging materials should be manufactured in an energy-efficient manner, using as little water as possible and, where appropriate, recycled material should be incorporated into product packaging. In the case of plastics, recycled polymers, generally cheaper than virgin polymers, can now be produced to food grade standards.

Logistics and transportation efficiency should also be optimised by considering the shape and transportation of products and assessing both primary and secondary packaging requirements. The packaging should be as light as possible, void space should be removed and superfluous design features eliminated. Where possible colours should be avoided as they add cost and reduce product recyclability.



### *Resource recovery*

The final driver of the packaging methodology defined at the workshop focused on recycling. Certain materials should be avoided so as to promote the recyclability of the packaging. For example, metallic labels and aluminum closures and seals should not be used as these have a negative impact on polymer recycling (Design for Sustainability with Plastics, Issue 4, compiled by PAICA). Wet strength paper labels on plastic packaging are also not advisable as they do not disintegrate into pulp during the wash phase and can contaminate the polymer. Finally, biodegradable materials should be avoided as in many instances they fail to biodegrade on landfill and can compromise the entire recycling process.

If the packaging consists of multiple material combinations, then these materials should be compatible in the recycling process. Additionally, when auxiliary components, for example caps and labels, are manufactured from different materials to the container, then they should be designed in such a way that they can easily be separated during the recycling process. It is also good practice to engage with recyclers to find out which components become problematic in the recovery process. Importantly, recycling information should always be provided on the packaging, for example all rigid plastics should have material identification codes and labels.

### *Builders Warehouse packaging audit*

As an outcome of the packaging rationalisation workshop, Builders Warehouse conducted a packaging audit of its flexible and rigid product packaging. In terms of rigid packaging, primary considerations included product safety, sustainability and packaging recyclability. The projected benefits of the proposed new packaging would be increased quantity per pallet (from a 5% increase in pallet volume for 500 ml containers to a 20% increase for 1 litre containers), child resistant closure and improved consumer handling.

## The future of packaging: Massmart's private labels

Looking ahead, Massmart is focused on identifying opportunities to improve its standard product packaging and educate its buyers regarding the opportunities associated with packaging rationalisation. Massmart will also conduct regular packaging audits of private label products to ensure that the Group's packaging remains of a consistently high standard from both a safety and sustainability perspective. The results of these workshops and audits will enable Massmart to identify and incorporate safer, more cost effective and environmentally sensitive packaging in Massmart private label products. ■