



Label-free bottles for improved sustainability

The most sustainable label? No label at all

Label-free bottles are an increasingly popular trend among food and beverage manufacturers. Portuguese company Carvalhos has embraced this approach by introducing label-free PET and rPET bottles in 0.33l, 0.5l, and 1.5l sizes. These bottles are produced using SMI's EBS 8 KL Ergon stretch-blow moulder, which allows for the creation of containers without traditional labels while maintaining product branding and regulatory information.



The Carvalhos blow moulder not only produces traditional PET and rPET bottles that require label application, but it is also equipped with specialised moulds designed by SMI MEC for the stretch-blow moulding of its 0.33l, 0.5l, and 1.5l flat-bottom rPET bottles without paper or plastic labels. This eco-friendly solution eliminates the need for glue and additional paper or plastic materials, simplifying the recycling process and ensuring higher purity in recycled PET.

The area dedicated to the label has been removed, eliminating the ribs typically found in traditional bottles. An innovative combination of embossed and debossed engravings on the bottle body therefore provides additional space for the brand logo and essential product information, which would traditionally appear on a label. This approach also allows for the inclusion of information in braille.

Beyond its environmental benefits, this solution aligns with Carvalhos' aesthetic and branding needs, helping the new bottle stand out on store shelves and attract consumer attention.

The shift to label-free bottles offers several advantages for the environment, consumers, and bottlers.

Advantages for the environment and the consumer

From an environmental and consumer perspective, label-free PET bottles are fully recyclable without requiring the removal of labels, which simplifies the recycling process and ensures a higher purity of recycled materials. The absence of labels also eliminates the need for adhesives, reducing the use of chemicals that can interfere with recycling. Additionally, reducing packaging materials helps minimise overall waste, contributing to more sustainable resource management.

Advantages for the bottler

For bottlers and manufacturers, eliminating labels leads to cost savings, as there is no longer a need to purchase labels or adhesives. Storage requirements for raw materials are also reduced, freeing up space in production facilities. The manufac-

turing process is further streamlined by removing the need for labelling machines, which lowers production complexity and maintenance requirements. Additionally, the absence of labels allows for a more efficient PET recycling process, as the bottles can be processed without the additional step of separating materials.

Giving shape to ideas

The quality of the moulds installed on rotary stretch-blow moulders and the efficiency of the stretch-blow moulding process are two fundamental factors in producing high-quality bottles that attract consumers' attention.

To support manufacturers transitioning to label-free designs, SMI's subsidiary SMI MEC has developed special mould couplings that enable quick changeovers between traditional and label-free bottle formats. This solution allows companies to adapt their production lines without requiring extensive modifications to existing equipment.

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