

MAURITIAN
STANDARD

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**Plastics – Post-consumer
polyethylene terephthalate
(PET) bottle – Specifications for
food grade PET recyclates and
preform**

ICS 83.080.20



**Mauritius Standards Bureau
Moka**



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Contents

1	Scope.....	1
2	Normative references	1
3	Terms and definitions	3
4	Requirements.....	4
4.1	General	4
4.2	Recycling process.....	4
4.3	Post-consumer PET bottle recyclates.....	5
4.4	Preform material.....	8
4.4.1	Physical and chemical properties.....	8
4.4.2	Overall migration of constituents.....	8
4.4.3	Specific migration of chemicals.....	8
4.4.4	Recycled content	9
4.4.5	Organoleptic properties	10
5	Traceability	10
6	Packaging.....	10
7	Marking and labelling.....	11
	Annex A (informative) Schematic diagram for some plastics recovery options.....	12
	Bibliography.....	13

Foreword

This Mauritian Standard was drawn by the **Circular Economy Standards Committee** through its Subcommittee on **Recycled Plastics** and approved by the **Standards Council** on 27 January 2021. It was notified in the Government Gazette on **27 February 2021***

PREVIEW

***General Notice No. 387 of 2021**

Introduction

Polyethylene terephthalate (PET) has become the preferred packaging material worldwide over glass and metal for water and soft drinks bottles. With the increasing demand for packaged and processed food, the risk of the amount of plastic waste accumulated will be too large for landfilling. To prevent degradation of the environment, manufacturers are encouraged to dispose post-consumer plastic bottles and containers in a sustainable way. Recycling of PET waste is one type of material recovery process intended to save resources (virgin raw materials, water and energy) while minimizing harmful emissions into air, water and soil as well as human health.

The availability of recycled PET (rPET) as a raw material has gained momentum due to improved recycling efforts from curbside collection. This has led to increased levels of rPET available for reprocessing into consumable products such as textiles, carpet, fibre, strapping, sheet extrusion and food grade containers. To ensure that recycling constitutes the best environmental option for treating the available waste, some prerequisites should preferably be met:

- recycling scheme being contemplated should generate lower environmental impacts than alternative recovery options;
- existing potential market outlets should be identified that would secure a sustainable industrial recycling operation;
- collection and sorting schemes should be properly designed to deliver recyclable plastics waste fractions fitting reasonably well with the available recycling technologies and with needs of the identified market outlets.

Polyethylene terephthalate post-consumer PET bottles can be recycled into food grade pellets or flakes which are then used to make new bottles and food packaging. A schematic diagram of some plastics recovery options is given in Annex A.

Plastics packaging waste may contain residues from previous use, contaminants from misuse and contaminants from non-authorized substances which could migrate into the food the material contacts. Manufacturers of food contact articles made from recycled PET are responsible for ensuring that, like virgin material, recycled PET material is of suitable purity for its intended use and will meet all existing specifications for the virgin material.

PREVIEW

Plastics – Post-consumer polyethylene terephthalate (PET) bottle – Specifications for food grade PET recyclates and preform

1 Scope

This Mauritian Standard specifies requirements and test methods for post-consumer polyethylene terephthalate (PET) recyclates (flakes and pellets) for use in PET preforms and PET bottles intended for packaging food and beverages and covers the criteria for safety evaluation of PET recycling processes.

The standards also specifies requirements for the PET preform material that characterize it as safe for direct food contact. The dimensional and mechanical properties of the PET preforms and PET bottles are outside the scope of this standard.

This document is intended to be used by the supplier and purchaser of such materials, to assist them in agreeing on specifications.

This standard is not applicable for other types of recycled plastic materials.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest document (including any amendments) applies.

MS 251:2021	<i>List of constituents of polyalkylene terephthalates (PET and PBT) for their use in contact with foodstuffs, pharmaceuticals and drinking water</i>
MS ISO 472:2013 +A1:2018	<i>Plastics — Vocabulary</i>
MS ISO 14021	<i>Environmental labels and declarations – Self declared environmental claims (Type II environmental labelling)</i>
MS ISO 15270:2008	<i>Plastics — Guidelines for the recovery and recycling of plastics waste</i>
MS ISO 12418-1:2012	<i>Plastics – Post-consumer poly(ethylene terephthalate) (PET) bottle recyclates – Part 1: Designation system and basis for specifications</i>
MS ISO 12418-2:2012	<i>Plastics – Post-consumer poly(ethylene terephthalate) (PET) bottle recyclates – Part 2: Preparation of test specimens and determination of properties</i>
ISO 1133-2:2012	<i>Plastics – Determination of the melt mass-flow rate (MFV) and melt volume flow rate (MVF) of thermoplastics - Part 2: Methods for materials sensitive to time-temperature history and/or moisture</i>