



THE RECYCLED MATERIAL STANDARD

# Plastic Material Classification

Issued May 6, 2021



## Forward

This document serves as an addendum to the Recycled Material Standard Plastics Module for the purpose of classifying Recycled Material Standard (RMS) product groups. Certified organizations' product groups covered by RMS chain of custody will be publicly listed in the RMS Certificate Database at [RMScertified.com](https://RMScertified.com). This document will be updated as needed to reflect additions in certified products included in the RMS certification program. When classifying materials, participants are encouraged to follow guidelines for allowable contamination and prohibited materials as designated by industry standards.

## Requests for new classification

Requests for new material classifications should be submitted through a participating organization's certification body.

## Level One Descriptions

The level one categories are organized (roughly) in the order of recycled material supply chain flow.

### Disclaimers

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Provisions for safety have not been included in this standard because governmental agencies or other national standards-setting organizations provide safety requirements.

Unless otherwise referenced as normative, appendices are not considered an integral part of the Recycled Material Standard. They are provided as general guidelines to the manufacturer, regulatory agency, user, or certifying organization.

## P1 Reclaimed Plastic

This category includes plastic material that would have otherwise been disposed of as waste or used for energy recovery but has instead been collected and recovered [reclaimed] as a material input, in lieu of new primary material, for a recycling process. Reclaimed plastic may be derived from either post-consumer or post-industrial sources (also referred to as scrap materials or scrap) as defined in the RMS Plastics Module.

Official classification systems of reclaimed plastics are developed by (supra-)national organizations (e.g. industry associations) and are based upon defined, verifiable and transparent criteria. These criteria usually aim at the categorization of reclaimed plastic materials according to certain quality aspects, but their application in specific supply chains should allow the characterization of the relevant points of reclamation. Official classification systems are recognized and used in the market in such a way that the classifications and corresponding claims are basic elements in commercial transaction documents and incorrect claims may lead to legal actions against the one who made the claim.

The predominant systems in the US are available from:

- Institute of Scrap Recycling Industries (ISRI), Scrap Specifications Circular
- Association for Plastic Recyclers (APR), APR Bale Specifications

## P2 Polymer Intermediates

This category represents materials that have been generated by a chemical recycling process (also known as advanced recycling technology) but must be further processed to create a polymer or plastic based product.

## P3 Polymers (Resins)

This category represents materials that have been generated as a result of the reclamation process from either mechanical or chemical recycling.

## P4 Plastic Articles

This category represents materials or substrates that may be suitable for use or may undergo further converting into a plastic product.

## P5 Plastic Products

This category represents items have been generated by a converting process such as blow molding, calendaring, casting, compression molding, injection molding, thermoforming, or vacuum forming.

The initial list of plastic products is focused on packaging products, but the RMS is intended to serve markets beyond packaging and additional plastic product descriptions will be added.

Level 1		Level 2		Level 3	
<b>P1</b>	Recovered Plastic	<b>P1.1</b>	Mono-materials	P1.1.1	Acrylonitrile Butadiene Styrene (ABS)
				P1.1.2	Poly methyl methacrylate (acrylic)
				P1.1.3	Nylon
				P1.1.4	Polycarbonate
				P1.1.5	Ethylene polymers (LD, LLD, HD)
				P1.1.6	Polyethylene terephthalate (polyester) (PET)
				P1.1.7	Polyethylene terephthalate glycol (PETG)
				P1.1.8	Polylactic acid (PLA)
				P1.1.9	Polypropylene (PP)
				P1.1.10	Polystyrene (PS)
				P1.1.11	Polyurethane (PU)
				P1.1.12	Polyvinyl chloride (PVC)
				P1.1.13	Other monomaterials
		<b>P1.2</b>	Mixed Materials	P1.2.1	Mixed Olefins
				P1.2.2	Other mixtures NEC
<b>P2</b>	Polymer Intermediates	<b>P2.1</b>	Recycled Monomers	P2.1.1	Terephthalic Acid (PTA)
				P2.1.2	Dimethyl Terephthalate (DMT)
				P2.1.3	Ethylene Glycol (EG)
				P2.1.4	Styrene
				P2.1.5	Lactic acid
		<b>P2.2</b>	Blended Intermediates	P2.2.1	Gaseous blends
				P2.2.2	Liquid blends
				P2.2.3	Solid blends
<b>P3</b>	Polymers (Resins)	<b>P3.1</b>	Individual Resin Types	P3.1.1	Acrylonitrile Butadiene Styrene (ABS)
				P3.1.2	Poly methyl methacrylate (acrylic)
				P3.1.3	Nylon
				P3.1.4	Polycarbonate

Level 1		Level 2		Level 3	
<b>P3</b>	Polymers (Resins)	<b>P3.1</b>	Individual Resin Types	P3.1.5	Ethylene polymers (LD, LLD, HD)
				P3.1.6	Polyethylene terephthalate (polyester) (PET)
				P3.1.7	Polyethylene terephthalate glycol (PETG)
				P3.1.8	Polylactic acid (PLA)
				P3.1.9	Polypropylene (PP)
				P3.1.10	Polystyrene (PS)
				P3.1.11	Polyurethane (PU)
				P3.1.12	Polyvinyl chloride (PVC)
				P3.1.13	Other monomaterials
		<b>P3.2</b>	Mixed Material Batches	P3.2.1	Plastics only
				P3.2.2	With fillers
<b>P4</b>	Plastic Articles	<b>P4.1</b>	Flexible Materials	P4.1.1	PET film or wrap
				P4.1.2	PE film or wrap
				P4.1.3	PVC film or wrap
				P4.1.4	PP film or wrap
				P4.1.5	PS film or wrap
				P4.1.6	Other spec. film or wrap
				P4.1.7	Multimaterial films
				4.1.8	Multimaterial Composites
		<b>P4.2</b>	Pre-forms	P4.2.1	Bottle forms
				4.2.2	Sheets for molding
<b>P5</b>	Plastic Products	<b>P5.1</b>	Packaging Elements	P5.1.1	Monomaterial flexible packages
				P5.1.2	Multimedial flexible packages
				P5.1.3	Composite material flexible packages
				P5.1.4	Monomaterial bottles
				P5.1.5	Mixed material bottles
				P5.1.6	Monomaterial rigids

Level 1		Level 2		Level 3	
<b>P5</b>	Plastic Products	<b>P5.1</b>	Packaging Elements	P5.1.7	Mixed material rigids
				P5.1.8	Composite containers
				P5.1.9	Caps, closures, fitments
				P5.1.10	Plastic labels
				P5.1.11	Other packages NEC
				P5.1.12	Other parts NEC
		<b>P5.2</b>	Automotive	TBD	TBD
		<b>P5.3</b>	Consumer Goods	TBD	TBD
		<b>P5.4</b>	Healthcare & Medical	TBD	TBD
		<b>P5.5</b>	Construction & Infrastructure	TBD	TBD
		<b>P5.6</b>	Agriculture	TBD	TBD
		<b>P5.7</b>	Electrical & Electronics	TBD	TBD
		<b>P5.8</b>	Agriculture	TBD	TBD