PACKUK

Making material change

Recyclability Assessment Methodology:

Material One-Pagers

Department for Environment Food & Rural Affairs

Scottish Government
Riaghaltas na h-Alba
gov.scot

Llywodraeth Cymru
Welsh Government

Department of Agriculture, Environment and Rural Affairs

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How to use this resource:

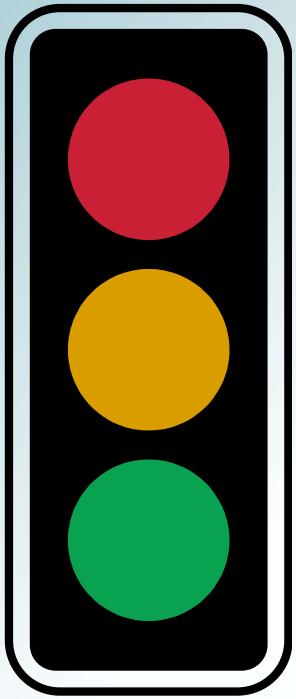
- These graphics have been created to help you better understand the Recycling Assessment Methodology (RAM) guidance
- Firstly, we will break down the **red**, **amber**, **green** ratings and what these mean
- Next, we will apply the ratings to each category of material so you can better understand how the packaging you produce will be rated.

Different kinds of packaging receive different ratings.

We refer to these as **red**, **amber** and **green**.

This rating affects the disposal fee that will be charged for that packaging. This is sometimes called **‘Fee Modulation’.**

Here’s a breakdown of what the ratings mean:



Red: Packaging that has specifications which make it difficult to recycle at scale

Amber: Packaging that may experience challenges during collection and sortation, requires specialist infrastructure for reprocessing, the efficiency output quality of reprocessing is affected, or there is some secondary material loss

Green: Packaging that is widely recyclable in the current UK infrastructure

Now that you understand the RAG system, you can use the following guides to work out how your packaging will be rated.

These one-page guidance notes are designed to aid interpretation of the RAM. The RAM guidance available on gov.uk should be used to complete RAM assessments.

Paper and Board

Fibre-based composite (FBC) packaging with a layer of plastic <5% by weight should be assessed through Paper and Board material guidance. FBC packaging with a layer of plastic >5% by weight should be assessed through FBC material guidance.

- FBC with plastic layers on both sides (double-sided lamination)+
- Paper and board with glitter adhered+
- Greaseproof, siliconised or waxed paper+
- Parchment paper+
- Padded polyethylene lined envelopes (unless easily separated by hand)+
- <40mm in at least two dimensions+
- Non-paper content greater than 15% by weight and not classified as a FBC
- Urea/Formaldehyde intentionally added*
- Urea/Melamine intentionally added*
- Glass or carbon fires intentionally added
- Two-sided wax coating**
- Siliconising agents

- Collected at kerbside by 50-74% of local authorities or via a take back scheme
- Non-paper content > 10% by weight and not classified as a FBC
- Non-wood-based-fibres+
- Adhesive lamination (inside of pack) of PET, mPET or PET/PE*
- PVDC/PVC polymer dispersion coatings*
- Lamination with aluminium foil where the coating thickness is >=6micron (µm)
- Wax dispersion, including microcrystalline waxes**
- Direct metallisation, including primer, aluminium nanoscale, or protective coating
- Transfer metallisation, including adhesive and transfer metallisation*

- Collected at kerbside by at least 75% of local authorities
- Free from all RED and AMBER contaminants

*Unless test results are provided to confirm that it can be reprocessed without causing disruptions to the processes or affecting other packaging waste materials

** Only applies to the paper/board and does not apply to any inks used

+ See RAM for further guidance

Fibre-Based Composites (Liquid Cartons)

- <40mm in at least two dimensions+
- Any outer layer other than PE or paper*
- Contains PE with <80% polymer content by weight
- Contains PP >20% polymer content by weight
- Contains PET >5% polymer content by weight
- Contains biodegradable polymers in any proportion of polymer content
- Liquid food and drink cartons with any outer layer, other than PE or paper****

- Collected at kerbside by 50-74% of local authorities or via a take back scheme - for liquid food and drink cartons (FBC) this is 66%
- Limited Collections route if collected by 50% of local authorities*
- Contains PE between 80%-90% polymer content by weight
- Contains PP between 10-20% polymer content by weight
- Contains PET with <5% polymer content by weight
- Wax Coatings, including wax emulsions and dispersions**
- Urea/Formaldehyde*

- No cartons will achieve a green rating due to current collection constraints

*Unless test results are provided to confirm that it can be reprocessed without causing disruptions to the processes or affecting other packaging waste materials
** Only applies to the FBC and does not apply to any inks used
**** Unless evidence and testing demonstrate that they can be reliably identified by Near Infrared (NIR) sensor-based sortation systems
+ See RAM for further guidance

Fibre-Based Composites

Fibre-based composite (FBC) packaging with a layer of plastic <5% by weight should be assessed through Paper and Board material guidance. FBC packaging with a layer of plastic >5% by weight should be assessed through FBC material guidance.

- FBC packaging with >15% non-paper content by weight+
- FBC with layers of plastic on both sides (double-sided lamination)+
- Paper and board with glittered adhered to it+
- Greaseproof, siliconised or waxed paper+
- Parchment paper+
- Padded polyethylene lined envelopes (unless easily separated by hand)+
- <40mm in at least two dimensions+
- Urea/Formaldehyde intentionally added*
- Urea/Melamine intentionally added*
- Glass or carbon fibres intentionally added
- Two-sided lamination, for example PE/Paper/PE, PP/Paper/PP, PET/Paper/PET, unless there is clear consumer guidance for peeling off the lamination
- Two-sided wax coating**
- Siliconising agents

- Collected at kerbside by 50-74% of local authorities or via a take back scheme
- Non-paper content >10% by weight
- Non-wood-based fibres+
- Adhesive lamination (inside of pack) of PET, mPET, or PET/PE*
- PVDC/PVC polymer dispersion coatings*
- Lamination with aluminium foil where the coating thickness is >=6micron (µm)
- Wax dispersion, including microcrystalline waxes**
- Direct metallisation, including primer, aluminium nanoscale, or protective coating*
- Transfer metallisation, including adhesive and transfer metallisation*

- Collected at kerbside by at least 75% of local authorities
- Free from all RED and AMBER contaminants

*Unless test results are provided to confirm that it can be reprocessed without causing disruptions to the processes or affecting other packaging waste materials

** Only applies to the FBC and does not apply to any inks used

+ See RAM for further guidance

Plastics (Flexibles)

- Carbon black pigment within the masterbatch**
- Aluminium foil layers
- Polyolefin-based plastic film packaging and plastic bags which contain <80% by weight of PE, PP, or a combination of both
- PET/PVC/PVDC
- Non-PE and non-PP foamed polymer layers
- Oxo-degradable, bio-degradable plastic, or compostable plastic
- Paper
- Aluminium (not metallised films)
- EVOH barriers or coatings > 10% total weight
- Oxo-degradability additives
- Foamed thermoplastic non-polyolefin elastomers
- Density>1g/cm3
- Laquers and inks containing PVC binders

- Meets criteria for a valid take back scheme
- Items with attached labels or sleeves of a different material type
- Adhesives such as polyurethane >3% weight when applied to PE
- Adhesives such as polyurethane >5% weight when applied to PP
- Adhesives such as acrylic or natural rubber latex adhesives, as well as non-PE or non-PP based tie layers >5% weight
- Plastic film labelling: attached labels or sleeves of a different material type

- No films will achieve a green rating due to current collection constraints

**This applies to the plastic itself and not any inks or labels used

Plastics (Rigids) PET Bottles

- Carbon black pigment within the masterbatch**
- <40mm in at least two dimensions+
- PVC (including non-PVC with PVC components)
- PS (including but not limited to HIPS, expanded and extruded)
- Oxo-degradable, biodegradable or compostable plastics
- Non-polyolefin foamed plastics e.g. non-PP and non-PE
- EVOH as a barrier or coating >10% total weight
- Attached labels or sleeves: PVC/Metallised/PS with a density >1g/cm3
- Attached caps and seals: Steel or aluminium with density >1g/cm3
- Attached caps and seals: Silicone (including valves)

- Collected at kerbside by 50-74% of local authorities or via a takeback scheme
- Use of foil
- EVOH >5% total weight
- Dark blue/dark green/brown*
- External coatings or PA-3 layers
- UV stabilisers or AA blockers as additives

- Collected at kerbside by at least 75% of local authorities unless: plastic bottles (100% collection requirement) or rigid mixed plastics (pots, tubs and trays) (88% collection requirement)
- Free from all RED and AMBER contaminants
- Attached caps and seals: PET
- Attached caps and seals: PVC, Metallised or PS with a density >1g/cm3

**This applies to the plastic itself and not any inks or labels used
+See RAM for further guidance

Plastics (Rigids) Trays

- Carbon black pigment within the masterbatch
- <40mm in at least two dimensions+
- PVC/PS
- Oxo-degradable, biodegradable or compostable plastics
- Non-polyolefin foamed plastics e.g. non-PP and non-PE
- EVOH as a barrier or coating >10% total weight
- Attached labels or sleeves: PET/PVC/metallised or PS with a density >1g/cm3

- Collected at kerbside by 50-74% of local authorities or via a takeback scheme
- Use of foil
- EVOH >5% total weight
- O^2 scavengers/UV stabilisers/AA blockers as additives
- HDPE/LDPE/PP/PET/paper inserts

- Collected at kerbside by at least 75% of local authorities unless: plastic bottles (100% collection requirement) or rigid mixed plastics (pots, tubs and trays) (88% collection requirement)
- Free from all RED and AMBER contaminants

+See RAM for further guidance

Plastics (Rigids) HDPE

- Carbon black pigment within the masterbatch**
- <40mm in at least two dimensions+
- PVC/PS
- Oxo-degradable, biodegradable or compostable plastics
- Non-polyolefin foamed plastics e.g. non-PP and non-PE
- PVDC barriers or coatings
- PS/PVC/EVA liners with aluminium
- Attached labels and sleeves: PVC/aluminium/metallised PET or metallised PS
- Attached caps and seals: Steel/aluminium/PS/PVC/thermoset plastic caps
- Attached caps and seals: PVC/silicone seals

- Collected at kerbside by 50-74% of local authorities or via a takeback scheme
- Use of foil
- EVOH >5% total weight
- Light blue/light green/light tints/opaque colours*
- PA including MXD6 as barriers or coatings
- Seals comprised of aluminium

- Collected at kerbside by at least 75% of local authorities unless: plastic bottles (100% collection requirement) or rigid mixed plastics (pots, tubs and trays) (88% collection requirement)
- Free from all RED and AMBER contaminants
- HDPE

**This applies to the plastic itself and not any inks or labels used
+See RAM for further guidance

Plastics (Rigids) PP

- Carbon black pigment within the masterbatch**
- <40mm in at least two dimensions+
- PVC/PS
- Oxo-degradable, biodegradable or compostable plastics
- Non-polyolefin foamed plastics e.g. non-PP and non-PE
- PVDC barriers or coatings
- PVC, PS, Polyurethane (PU), PA (Nylon), PET (heavy), Polycarbonate (PC), Acrylic (PMMA), thermoset plastics, or metallic inserts
- Attached labels and sleeves: PVC or metallised PET
- Attached caps and seals: Steel, aluminium, PS, PVC, or thermoset plastic caps

- Collected at kerbside by 50-74% of local authorities or via a takeback scheme
- Use of foil
- EVOH >5% total weight
- Opaque colours, excluding white *
- PA including MXD6 as barriers or coatings
- HDPE/LDPE/Paper/PET inserts

- Collected at kerbside by at least 75% of local authorities unless: plastic bottles (100% collection requirement) or rigid mixed plastics (pots, tubs and trays) (88% collection requirement)
- Free from all RED and AMBER contaminants

**This applies to the plastic itself and not any inks or labels used
+See RAM for further guidance

Steel

- >300mm in height, width or length where the item cannot be broken down, folded, or collected via a take back scheme

- Collected at kerbside by 50-74% of local authorities or via a takeback scheme
- >30% non-steel content by weight

- Collected at kerbside by at least 75% of local authorities unless: aerosols (94% collection requirement), food cans/tins (100% collection requirement), metal lids on glass jars collected with glass bottles and jars (89% collection requirement) or foil and foil trays (84% collection requirement)
- Free from all RED and AMBER contaminants

Aluminium

- >300mm in height, width or length where the item cannot be broken down, folded, or collected via a take back scheme

- Collected at kerbside by 50-74% of local authorities or via a takeback scheme
- >30% non-aluminium content by weight

- Collected at kerbside by at least 75% of local authorities unless: aerosols (94% collection requirement), food cans/tins (100% collection requirement), metal lids and closures on glass jars collected with glass bottles and jars (89% collection requirement) or foil and foil trays (84% collection requirement)
- Free from all RED and AMBER contaminants

Glass

- Mirrored glass
- Heat-resistant or lead glass
- Decorative glass
- Glass with designed in contamination****

- Collected at kerbside by 50-74% of local authorities or via a takeback scheme
- Ceramic swing stoppers
- Non-glass attachments or inserts that cannot be separated by hand, other than attached labels (such as pumps or dispensers)*****
- Any colour other than clear (flint), green, blue, or amber (brown)*

- Collected at kerbside by at least 75% of local authorities
- Clear (flint), green, blue, or amber (brown) glass
- Free from all RED and AMBER contaminants

**** meaning product residue cannot be easily removed by the consumer such as nail polish bottles or concealer
***** this does not apply to metal attachments e.g. screw top skirts/collars

Wood

- While technically capable of being recycled, wood is not practically collected, sorted, or reprocessed at scale within the UK household packaging recycling infrastructure
- No wood is expected to exceed a RED rating. Producers may appeal this decision with the Technical Advisory Committee.
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Other

- While technically capable of being recycled, other materials are not practically collected, sorted, or reprocessed at scale within the UK household packaging recycling infrastructure
- No ‘other’ material is expected to exceed a RED rating. Producers may appeal this decision with the Technical Advisory Committee.
- No ‘other’ material is expected to exceed a RED rating. Producers may appeal this decision with the Technical Advisory Committee.