GUIDE

FOR THE

SELECTION OF SUSTAINABLE PACKAGING

LEROY MERLIN

Da vida a tus ideas

INDEX

1. INTRODUCTION

Packaging has 2 basic functions, a functional one (protecting the product's integrity) and a communicative one (it is the first element that the consumer comes into contact with, even prior to the product itself). Used correctly, it can help us connect with consumers who are increasingly more conscientious of the importance of environmental sustainability. A 2017 study conducted by Unilever in the USA with 200,000 adults in 5 countries, found that 33% of consumers choose brands they believe are more environmentally sustainable.

As a company, Leroy Merlin is firmly intent on contributing to the creation of better living spaces. The struggle against contamination and the efficient use of resources is found among our planet's global challenges and, in this context, packaging is a relevant factor, as it represents, in Spain, almost 63% of post-consumer plastic waste.

Therefore, and in line with ADEO Packaging Policy, we have proposed that our products' packaging be more sustainable, thus promoting, together with our suppliers, a reduction in the size and weight of our packaging and wrapping, fostering the use of packaging materials that are environmentally certified and can be easily separated and recycled, in addition to containing recycled materials. **We need your commitment to achieve this!**

Promoting sustainability through packaging implies making decisions in the earliest stages of the packaging design process. In that sense, all types of packaging (primary, secondary and tertiary) are important.

Primary packaging

Is the packaging that **is in direct contact with the product**. According to the Daymon Worldwide (consulting and marketing firm for companies), in order to communicate sustainability, the primary packaging must first include the following characteristics:

- **Minimalist:** made from recycled material, with no excess material and with minimal waste.
- **Appealing:** contemporary style, using natural colors, with a matte finish.
- **Informative:** containing information about the sustainable materials used, certifications and recyclability.
- **Versatile:** reusable or multi-purpose.
- **Practical:** easy to open, store or use, occupying minimal space.
- **Good for the environment:** with beneficial qualities for end-of-life, such as being recyclable, refillable or reusable.

In order to transmit these qualities, we propose using colors based on natural palettes, such as browns, greens or pale blues, adding recognizable sustainability symbols, highlighting the product's sustainable aspects, promoting its elegant and minimalist aesthetics, favoring cardboard, including photos or visuals that suggest sustainability.

Secondary packaging

Secondary packaging is that **which accompanies the products but is not in direct contact with it**. It is important to maintain coherence with the sustainability of the primary packaging, as the message can otherwise get lost (if, for example, it includes unnecessary additional elements). Examples of good practices are:

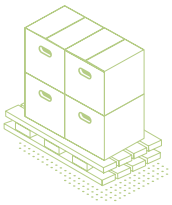
- that they be a natural color.
- that they be made from sustainably-sourced cardboard and/or recycled fibers.
- that they have no wrapping.
- that all graphics be printed directly on the cardboard, with no metallic coating.
- that the amount of labels and/or tape be minimal.
- that the transportation labels be made of paper or be printed directly onto the box.
- that all protection elements be made of cellulose fiber or polyethylene film cushions.

Tertiary or bulk packaging

Tertiary packaging, also known as transit packaging, is the **packaging that groups individual products for their transportation**, that which is received by the store prior to its sale. It is important to still consider the sustainability of this packaging even though it is less visible to the consumer.

The main recommendations to ensure sustainability are:

- **To preferably use returnable packaging that**, once emptied, can be returned to the supplier and reused for the same purpose.
- **Prioritize recycled cardboard** in tertiary packaging boxes, particularly if they are single use (apply the criteria included in the carboard packaging guide).
- **Minimize the use of** retractable film (PE).
- **Avoid glue and laminates**, which negatively impact the recyclability.
- **Ensure that the products are ecodesigned in order** to optimize space within the tertiary packaging.
- **Consider transportation of the products:** the more a product travels, the greater the environmental impact from the transportation (due to fuel consumption). If the product travels great distances, transportation by boat is more sustainable. Optimize the amount of products transported in each batch in order to minimize the negative impacts due to transport.



Furthermore, as with the primary and secondary packaging, the tertiary packaging can also meet the basic requirements for sustainable packaging and packing:

- Clearly display the logos and information pertaining to the recyclability of the packaging.
- Include messages on how to improve the packaging's end-of-life.
- Maximize the product/packaging relation to avoid packaging and wrapping waste.
- Clearly indicate what materials they are made of.

The objective of this guide is to be of support in the decision-making process for the most adequate type of primary packaging for Leroy Merlin products, considering only environmental criteria included in the circular economy strategy:

- Reduction of packaging material: lesser consumption of raw materials.
- Reduction in consumption of non-renewable plastic material.
- Promote the use of recycled material in packaging and wrapping.
- Promote packaging reuse (extend its life cycle).
- Improve recyclability: less waste creation.

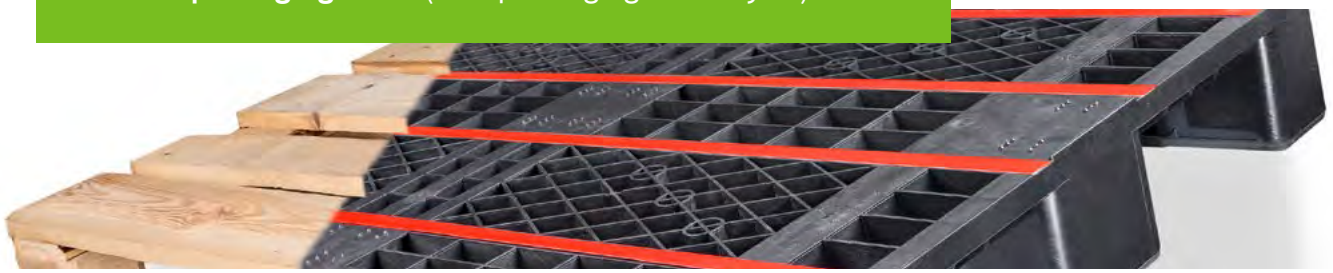
2. OBJECTIVE

This guide's objective is to serve as a tool in the decision-making process pertaining to the most adequate type of packaging for the range of Leroy Merlin España products (particularly primary packaging) from an environmental point of view, focusing on:

Reduction in the amount of packaging material: which contributes to a reduction in the consumption of raw materials.

Promote the use of recycled material in packaging and wrapping (i.e. recycled plastic and cardboard).

Promote packaging reuse (thus prolonging its life cycle).



Improve recyclability, which reduces waste creation.

3. GLOSSARY

Recyclable plastic	That can be recycled, i.e. collected, separated and recovered for subsequent reuse through an integrated packaging waste management system (IMS).
Recycled plastic	Manufactured from reused plastic, whether it be plastic waste or leftover industrial plastic.
Biodegradable plastic	That can be degraded, post-use, by fungus and bacteria, under specific environmental conditions.
Compostable plastic	That can be biodegraded, post-use, through composting, under specific climate and temperature conditions.
Bioplastic	Plastic that is certified as biodegradable and/or from a renewable source. Not all bioplastics are biodegradable.
PET	PolyEthylene Terephthalate, one of the most used and recycled plastics currently available.
rPET	Recycled PET.
PE, HDPE, LDPE, LLDP	Polyethylene, one of the most used fabrics, from a simple and low-cost manufacture. Its variants that are most used in packaging are High Density PE, Low Density PE, and Linear Low Density PE. In this guide, and for the simplification of the document, we will only refer to the high density (HDPE) and low density (LDPE) variations.
RRP, SRP	Packaging that is ready for sale or display (Retail Ready Packaging, Shelf Ready Packaging). Systems that facilitate displays and sale, without the need to unpack all units and place them individually.
bioPET / bioPE	PET or naturally-sourced Polyethylene (from sugar cane, vegetable oils…), non-biodegradable, with the same chemical composition as conventional PET/PE, and recycled in the same manner.

4. GENERAL RECOMMENDATIONS

These recommendations are applicable to all types of packaging and wrapping, regardless of the type of product.

MINIMIZE

PACKAGING IN ORDER TO GUARANTEE THE PRODUCT'S INTEGRITY.

A PACKAGING MUST BE DEVELOPED ONLY WHEN ABSOLUTELY NECESSARY.

Adjust the size of the packaging, optimize its thickness & weight

Eliminate superfluous packaging

Purpose of packaging: only as needed

Example: hanging accessories that **are not used**

Substitute unitary packaging for secondary packaging

Example: "Shelf Ready Packaging" to substitute rug bags

These recommendations are applicable to all types of packaging and wrapping, regardless of the type of product.

LESS IMPACT

USE MATERIALS THAT HAVE LESSER IMPACT

Reduce plastics, whenever there are more sustainable alternatives

Plastics are to be from recycled sources or recyclable.

Use materials that are more sustainable. Cardboard and paper must be the priority material used and be recycled or come from responsible sources.

PLASTICS BANNED:

PVC: can generate toxins when incinerated.

Minimize material that can generate problematic waste

Expanded polystyrene (EPS): Lightweight and easy to disperse. Can reach natural areas.

Bioplastics:
as long as no specific waste management exists for them.

These recommendations are applicable to all types of packaging and wrapping, regardless of the type of product.

CIRCULARITY

DESIGN TO REUSE AND RECYCLE

Recyclable packaging (the material can be recycled) +
Packaging with **recycled** material (manufactured with recycled material) +
Reusable packaging (can be used many times for the same purpose).

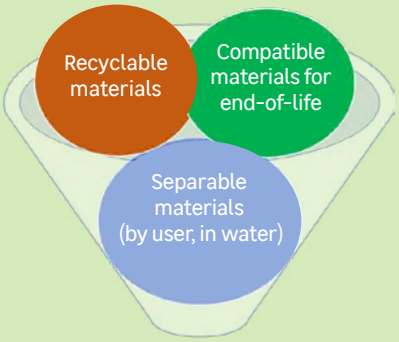
Total or partial reuse

Spray

Tertiary packaging

Packaging for bulk products

Separable and compatible materials



Recycling

Use materials that are most recycled

- Metals
- Most recycled plastics:
  - Polyethylene /PE/HDPE/LDPE
  - PET
  - Polypropylene / PP
- Paper and cardboard

Inform the consumer about: How to recycle?

RECYCLING SYMBOLS

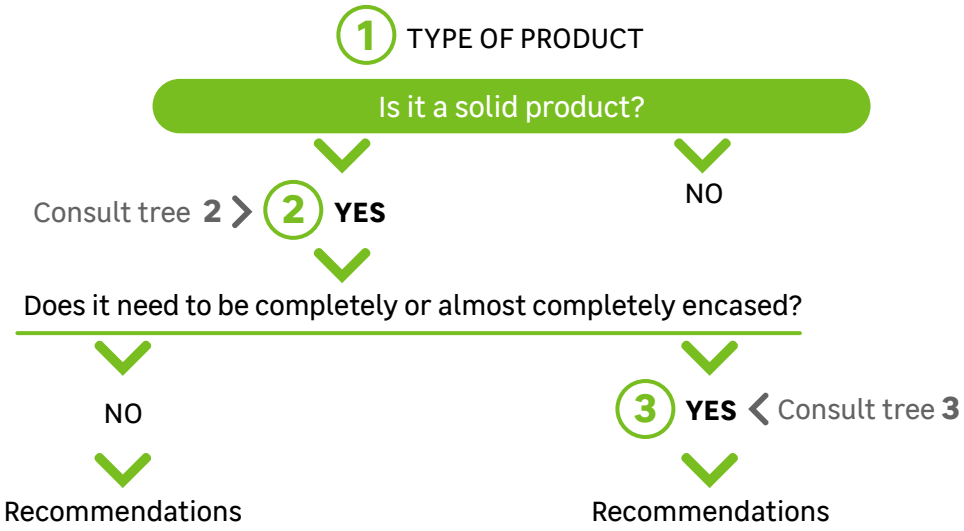
Is it necessary to separate any part of the packaging (labels, handles, washers, etc.)?

Where do you dispose of each item?

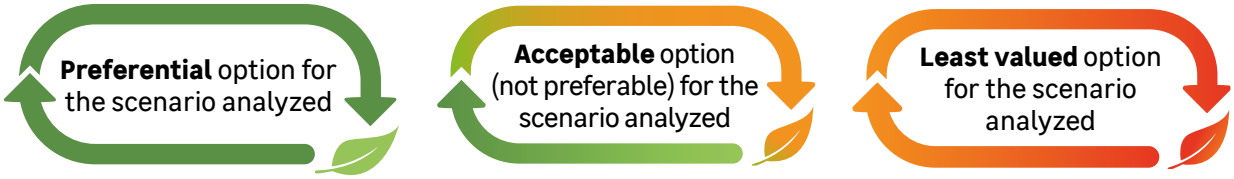
5. HOW TO USE DECISION TREES?

Beginning with the general decision tree, **follow the decision tree steps in order to arrive at the most sustainable packaging option.**

EXAMPLE OF THE USE OF DECISION TREES **FOR PACKAGING**



In each scenario, you will reach the recommended options.



Furthermore, you have specific recommendations for each type of packaging. **Don't forget** about the small elements that make a difference, such as **lids/caps or labels.**

RECOMMENDATIONS BY PACKAGING TYPE

If after using this guide you still have a specific question, contact the Product's Quality and Sustainability Department.

6. MAIN DECISION TREE

1 TYPE OF PRODUCT

Is it a solid product?

2 **YES**

NO

Is it preferable that it be displayed on a hook?

YES

NO

Is it possible to incorporate the hook in the tube/container/bottle?

YES

Plastic containers/bottles
See recommendations

Flexible tubes
See recommendations

NO

Is additional packaging (box, blister pack) necessary? Analyze all options to avoid using additional packaging, for minimal consumption.

YES

NO

Can the “Retail Ready Packaging” substitute the box or blister pack?

YES

Without box/ blister pack

NO

Can you attach a hook to the product (WITHOUT using a box or blister pack)?

NO

YES

See recommendations for Support and Hooks

Is it viable to use a cardboard box instead of a blister pack?

YES

Additional cardboard box
See recommendations

NO

Additional blister pack
See recommendations

2 SOLID PRODUCT

Can the product be directly distributed/displayed, without needing the primary packaging to encase it?

YES If the product's integrity is guaranteed with no encasing (film, bags) nor using blister packs.

YES If the product requires the grouping of different elements, yet this is viable without complete encasing.

YES Even if the product needs some packaging to provide information to the user, ease display or fasten elements that could come loose, it is unnecessary to cover/wrap the product.

YES

Does it require packaging that provides additional purposes, such as ease-of-use or in-use storage?

NO

NO

Can the "Retail ready packaging" RRP/SRP provide sufficient protection so as to eliminate the encasing projected in the primary packaging?

YES

Does it need any fastening for labels or product parts (i.e. cables)?

YES → 3 ← NO

Is sale in bulk an option?

NO

YES

NO

YES

See recommendations for closing or fastening elements

Is it preferable that it be placed on a support and/or have a hook?

NO

YES

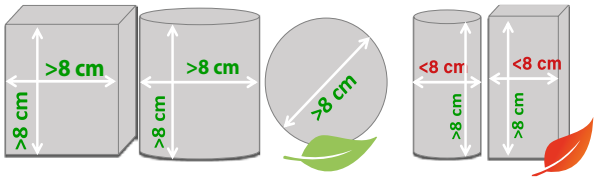
See recommendations for Support and Hooks

Retail Ready Packaging (RRP/SRP)

Without packaging

closing or fastening elements

3 SOLID PRODUCTS THAT REQUIRE PRIMARY PACKAGING WITH COMPLETE OR NEARLY COMPLETE ENCASING



Is the packaging size less than 8 cm?
(if so, its recycling is more difficult in recycling plants)

YES

Therefore, this kind of packaging is more difficult to be recycled

Is it possible that the main material used for the packaging be paper or cardboard?

YES

Paper/cardboard packaging
See recommendations

Mixed box
See recommendations

NO

Recycled plastic packaging

Plastic bag
See recommendations

Other plastic packaging
See recommendations

NO

Is a rigid packaging or wrapping (box, corner protectors, rigid supports, etc.) necessary?

YES

Is it enough with rigid exterior protection elements (in corners and edges, for example) or rigid support?

NO

Cardboard corner protector + film

Support+Bag/plastic wrap
See recommendations

Cardboard box or mixed box

See recommendations

Other Plastic packaging

See recommendations

YES

Cardboard corner protectors

Plastic corner protectors

NO

Paper/cardboard packaging
See recommendations

Bag/plastic wrap
See recommendations

Blister pack or plastic box
See recommendations

6.1. PLASTIC PACKAGING

6.1.1. GENERAL RECOMMENDATIONS

Does the packaging measure less than 8 cm?
(if so, it is more difficult to recycle)

Container, bottle, tube, bag...

YES

Can the sale format be changed? Larger packs, larger volume...

YES

NO

Is the packaging for large and/or heavy products difficult to handle? For example: >60 cm and/or >2kg

YES

Think about the use of handling / fastening systems

YES

NO

NO

- Prioritize the use of a single plastic or divisible or compatible plastics for recycling purposes (compatibility table).
- Incorporate the maximum amount possible of recycled plastic.

- Prioritize PET, Polyethylene (HDPE, LDPE) and Polypropylene (PP), the most recycled & with greater demand 5 plastics.

- Use BioPE or BioPET.

- Prioritize plastic that is transparent LDPE, PET) or natural in color (HDPE).

- Minimize packaging weight
- Sustainable material (i.e. recycled)

- Opaque PET

- Black and dark colors

Lose value during recycling

- Silicone
- PVdC elements
- Inks that discolor in hot water (stain other plastics in the wash prior to the recycling)

- Metallic elements difficult to separate

Continue the assessment with specific recommendations for containers, bottles or similar or other plastic packaging

6.1.2. CONTAINERS, BOTTLES AND SIMILAR

Packaging for direct contact with adhesives and silicone?

YES

- Minimize packaging weight
- Sustainable material (i.e. recycled)

NO

Is it possible to use the most sustainable color options?

- Best option: Natural color (translucent) for PE/PP, transparent for PET.
- Second best option: light colors.

YES

NO

YES

Is it possible to substitute the coloring of the packaging for any of the following options?

- Print directly on the packaging.
- Label that covers <60% of the packaging surface.
- Sleeve or thermoformed case, separable by user.

NO

dark/black PET

Very opaque Colors

PE/PP white or light colors

Spray, dispenser and seal

Reusable spray/ dispenser

Seal with compatible material

Seal with Aluminum, PVdC or silicone

Spray Non reusable

Selection of the best printing for recycling

PET Packaging

- None
- Relief
- Laser printing (minimal)

Minimum/moderate (exp. date)

Excessive printing

HDPE Packaging

- Minimal
- Moderate (exp. date)
- Laser printing (minimal)

Excessive printing

6.1.3. BOXES, BLISTER PACKAGING, BAGS, PLASTIC WRAP

Does the packaging contain films / bags?

YES → Polyethylene (LDPE, LLDPE) is the most recycled film

NO

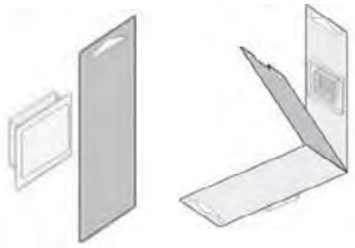
Does the packaging have one single element?
(does not include hooks, lids, internal protections, etc..)

YES

NO

Does the packaging have any metal, paper or cardboard?

YES → Use elements that the consumer can separate easily, indicating the correct recycling bin for each



NO

Does it only contain one type of plastic?

YES

NO

- Elements of the same plastic as the main material
- Elements made of compatible plastics

(See compatibility table)

Is it free of labels and adhesives?

NO → See recommendations for labels, sleeves and seals

YES

END

6.2. CARDBOARD OR MIXED PACKAGING

Is the packaging for bulky and/or heavy, difficult to manage products? (for example: >60 cm and/or >2kg)

YES

- Consider handles that facilitate manipulation
- Prioritize die cast handles

NO

Can the packaging be made entirely of paper/cardboard? With no plastic labels, plastic laminates, plastic handles, metal/plastic inserts, plastic windows, interior protection...

NO

YES

Is it possible to substitute plastic or metallic material for paper/cardboard?

YES

- Introduce recycled cardboard (balance between sustainability and protection)
- Select cardboard with sustainability certificate
- Use paper labels and gummed paper tape

FSC PEFC

NO

- Facilitate separation (removable/detachable plastic)
- Inform consumer about the need to separate materials for recycling
- Maximum 5% of the weight in plastic (3% recommended)
- PET (recycled origin in preference) for the windows

RPET

- Plastic encasing (films, laminates...).
- As their recycling is not easy & can generate toxic substances: EPS & PVC are banned.

3 PVC

Package decorated with moisture-resistant dyes or varnishes or any type of encasing?

YES

NO

END

- Select water dyes and coatings
- Foilblock printing (metallic stamps) <30% surface

- Plastic encasing (film, laminates...)
- Wax and latex encasing
- Adhesives that are laminated at T≥ 35
- UV dyes and varnishes

6.3. COMMON ELEMENTS

CLOSING/FASTENING ELEMENTS
(shrink-wrapping, bands, clamps)

FUNCTIONALITY		
Guarantee the packaging closure (seal)	Secure packaging products/ elements	External protection
		

Is its only objective to ensure closure (of boxes/bags) and tampering protection?

YES

Is cardboard the main material of the packaging to be closed?

YES

- Closure with gummed paper Finishes recommended at the end of "paper and cardboard"

- Plastic adhesive tape Without PVC
- Other plastic closures (plastic wrap, clamps, bands...)
- Double protection

NO

- Plastic adhesive tape Without PVC
- Other plastic closures (plastic wrap, clamps, bands...) Without PVC

NO

Is it feasible to use closure and securing elements made of paper and cardboard?

YES

Minimum quantity and/or weight

- Paper/cardboard elements See recommendations

NO

- Minimize packaging weight
- Sustainable material (i.e. recycled)
- Double protection (i.e. band + film)

SUPPORTS FOR VERTICAL DISPLAYS - HOOKS
(regardless of the main product/packaging)

- If feasible, choose supports/hooks manufactured in paper/cardboard (as per Recommendations for Paper/Cardboard packaging).
- Size < 8 cm: choose those manufactured with recycled material.
- If they have to be plastic: apply the same criteria as for plastic packaging.
- If the support/hook requires additional fastening elements (clamps, etc.):
  a) Minimize the amount of additional elements
  b) Review recommendations for Closing or Fastening Elements

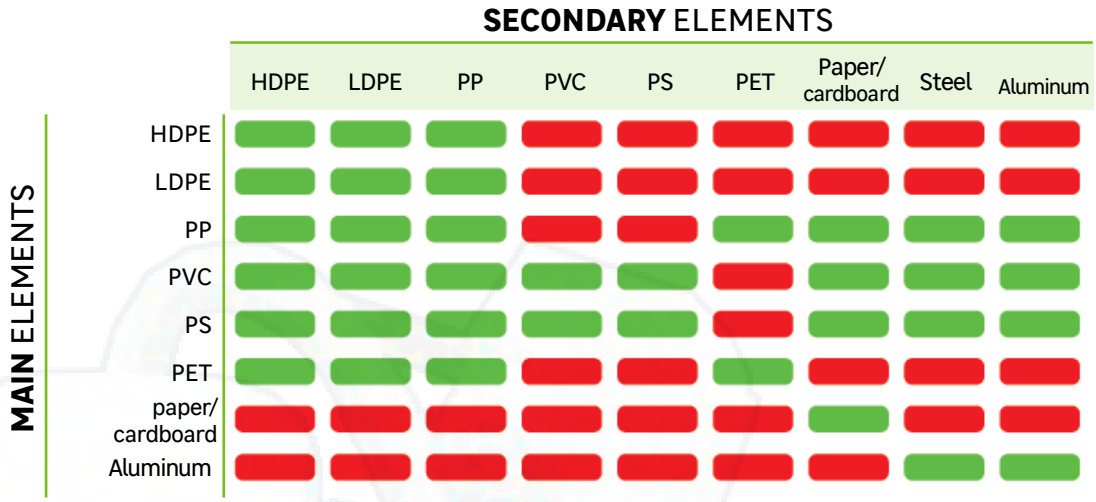
LIDS AND CAPS

- Manufactured with the same material as the body of the packaging.
- Compatible plastics for recycling (see Table of compatible materials).
- If they are metallic and the body of the packaging is plastic: substitute the lid/cap for a plastic one.
- If the packaging is plastic: choose lids/caps of the same color as the packaging body.
- Choose packaging designs that, when removing the lid or cap, do not still have seals/rings remaining in the packaging body.
- Sealed packaging (in addition to lid/cap): avoid aluminum and silicone seals, prioritize plastic seals (films).

LABELS, SLEEVES AND SEALS

- Correct size:
  Packaging ≥500 ml (<70% covered)
  Packaging < 500 ml (<50% covered)
- Prioritize easily separable sleeves and seals (i.e. microperforated double line).
- Instructions on packaging: how to separate the sleeves / seals and correct bins to deposit.
- The material for the packaging and label/ sleeve /seal are compatible for recycling (see Table of compatible Materials).
- The labels adhesive: water-soluble at 60º 80ºC/ *hot-melt* in alkali.

7. TABLE OF COMPATIBILITY OF MATERIALS FOR RECYCLING



HDPE	High Density Polyethylene
LDPE	Low Density Polyethylene
PP	Polypropylene
PVC	Polyvinyl chloride
PS	Polystyrene
PET	Polyethylene terephthalate

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AWAKE IN **EACH INDIVIDUAL**
THE DRIVE TO CREATE SPACES IN
WHICH TO **LIVE BETTER**