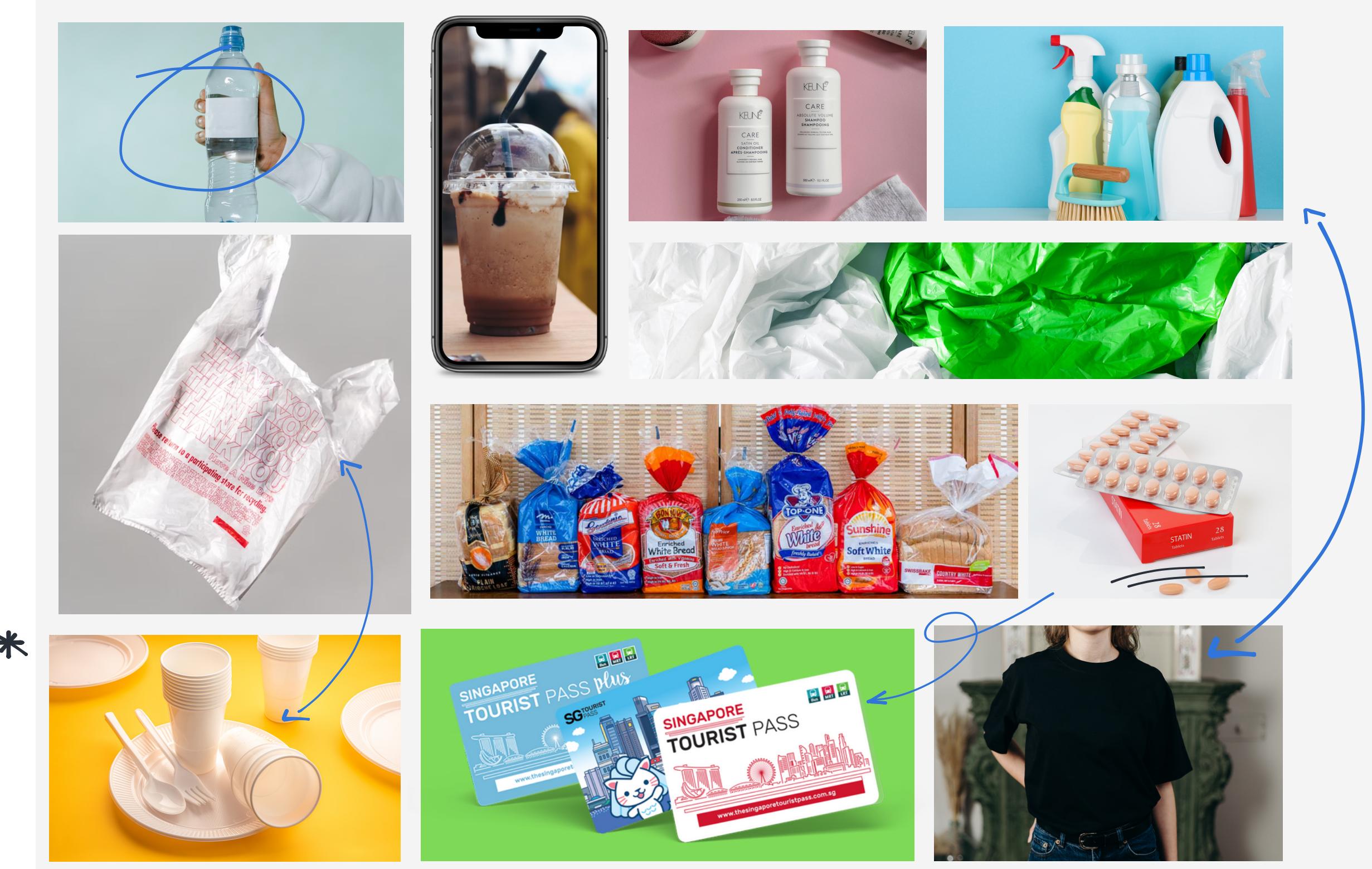


**Simple to use,
Tricky to recycle**

Guide to plastic recycling

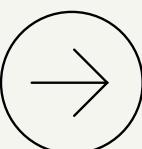
in **Singapore** and why we
only collecting type 2 and 6
plastic



RETHINK

WHAT WE DO

Turn “waste” into functional items and bring accessible recycling technologies and knowledge to end consumers and businesses



The complexities of plastic recycling

WHAT IS PLASTIC



Plastics originates from the "petrochemicals" sector and are items manufactured from fossil fuels like oil and gas. Over 99% of plastics originate from fossil fuels and there exist numerous types of plastic, each possessing unique chemical compositions and attributes.

WHY IS IT SO HARD TO RECYCLE?

01

Variation of plastic in different forms: When recycling plastic waste, facilities must sort and separate plastic by type for purity. Some plastics, though technically recyclable, may not be recycled due to dismantling and sorting challenges e.g. separating from metals or adhesive.

02

Contamination in the common recycling bin: The high contamination rate in our blue bins that comes from improper disposal of food and drink waste results in the rejection of recyclable plastics, particularly more regular in Singapore where we are using a common recycling collection system.

03

Some plastics are just not suitable for recycling: Plastics like type 3 and 5 are just impossible to recycle and have high-quality end-use. Recycling today can be commercially and technically difficult for these plastics due to the energy intensiveness and toxicity of the process.

RESIN IDENTIFICATION CODES

Look for this in your plastic products!



PET
POLYETHYLENE TEREPHTHALATE

- Recyclable in SG
- Strong & Light
- Harmful fumes produced when processed



HDPE
HIGH-DENSITY POLYETHYLENE

- Recyclable in SG
- Cheap, High chemical resistance
- Toxic and overheating causes degradation
- Easily burnt, harmful fumes produced when processed.



PVC
POLYVINYL CHLORIDE

- Cheap, High chemical resistance
- Toxic and overheating causes degradation
- Easily burnt, harmful fumes produced when processed.



LDPE
LOW-DENSITY POLYETHYLENE

- Cheap, High chemical resistance
- Light, Flexible
- Burns easily, difficult to recycle



PP
POLYPROPYLENE

- Thermal
- Keeps burning, High permeability to gases



PS
POLYSTYRENE

- Act as insulator, Cheap
- Styrene, which is toxic, is released when burnt.



OTHER PLASTIC

- Type of plastic is often unidentified and, hence difficult to recycle.
- A mixture of plastic means unidentified melting points which result in burning.

What do we collect ?



HIGH-DENSITY
POLYETHYLENE



LOW-DENSITY
POLYETHYLENE



POLYPROPYLENE



POLYSTYRENE



How to recycle?

4 STEPS TO CAP ENVIRONMENTAL POLLUTION



REMOVE CAPS FROM BOTTLES



CHECK FOR TYPE 2 PLASTIC ON CAPS



RINSE CAPS



PLACE IN RETHINK BINS



CAUTION WHEN RECYCLING

1 DO NOT MIX PLASTIC CODES!

Separating plastic types is crucial because mixing them lowers the quality of recycled plastic. Each plastic code has its own melting point and composition. Introducing different melting points and compositions weakens the plastic structure.

2 CLEAN

Plastics thrown in the bin need to be rinsed and washed to avoid contaminating other recyclables, which could ruin the entire batch and make it unfit for recycling!

3 TRIANGULAR SIGN DOES NOT MEAN RECYCLABLE!

The triangular symbol represents the plastic type, not its recyclability. It's commonly mistaken for being recyclable even when the plastic it represents cannot be recycled. Remember that only plastics labeled as types 1 and 2 can be recycled in Singapore!

