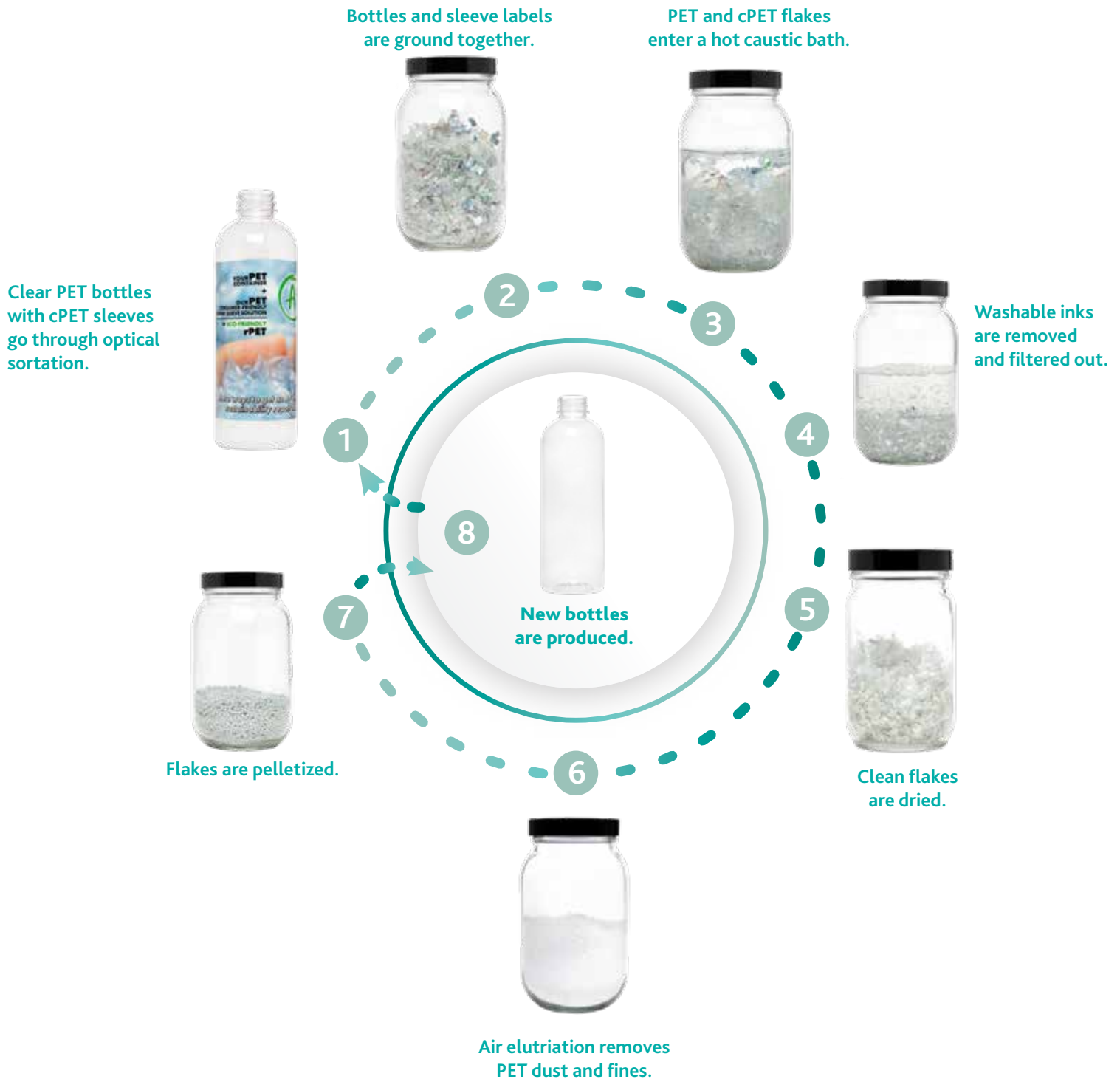


ENCORE LIFE CYCLE

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Packaging (including bottles) is collected and taken to an initial material recovery facility (MRF) where target PET bottles are processed or separated from other packaging via automatic near-infrared (NIR) and manual separation. PET bottles are compressed into bales to aid in bulk packaging for transport to the PET reclaimer.



Process step	Description
1. Clear PET bottles with cPET sleeves go through optical sortation.	Bottles and labels are scanned by automatic NIR sorting equipment at MRF. Bottles with cPET sleeves are more likely than bottles with polyolefin and polystyrene labels to be correctly identified, sorted, and directed to the clear PET stream. This is due to similarities in the compositions of cPET sleeves and PET bottles ("like on like").
2. Bottles and sleeve labels are ground together.	Bottles with sleeves attached are ground into 5–10 mm flakes to enable proper washing and handling.
3. PET and cPET flakes enter a hot caustic bath.	Both PET bottle flakes and cPET sleeve flakes are washed together in a hot (90°C) caustic bath. At this temperature, flakes from the cPET sleeve condense and reach a thickness of at least 100 µm (similar to low-weight mineral water bottles).
4. Washable inks are removed and filtered out.	Washable inks and other contaminants (fines, dust, food, paper) are separated from the cPET and PET flakes and are removed from the water via filtration and decantation. The amount of ink is marginal compared to the amounts of other contaminants filtered out of the water.
5. Clean flakes are dried.	Clean PET flakes mixed with cPET flakes are dried at standard PET flake temperature (120°–160°C) without risk of stickiness, bridge formations, yellowing, and black specks.
6. Air elutriation removes PET dust and fines.	During air elutriation, PET fines and dust are removed; cPET flakes are not removed due to their size of 100 µm minimum thickness.
7. Flakes are pelletized.	Both PET and cPET flakes are processed into food-contact rPET pellets, leading to an increase in yield without risk of stickiness, bridge formations, yellowing, and black specks.
8. New bottles are produced.	New preforms of up to 100% rPET pellets are injected and bottles are blown. No color degradation or non-intentionally added substances (NIAS) are caused by the cPET.

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