PET preforms with up to 100% recycled content

Colourant masterbatch · PDG Plastiques, an early adopter of new processing technology · In industrial production

Specification

Industrial site
PDG Plastiques, France

Process
Preform injection + reheat stretch blow moulding

Tooling
Multi-cavity valve-gated hot runner (MHT)

Part
PET preform 35/48 g and bottle

Polymer
PET with up to 100% recycled content

Additive
Colourant masterbatch: blue, green, yellow and white

GateMix™ fitted
One insert at each gate, in the hot-runner nozzle tip

Process settings
Unchanged

Need

Take an already high quality level further, at lower cost: an even colour on every preform and bottle with less colourant, while running high recycled content.

Result

What we checked	Without GateMix™	With GateMix™
Colourant dosage	✕ Standard dosage	✓ **At least 15% lower dosage**
Streaks, waves and marbling	✕ Can appear on preforms and bottles	✓ **No longer visible**
Opacity	✕ Needs full dosage	✓ **Unchanged opacity at lower dosage**
Cavity to cavity	✕ Variation between cavities	✓ **Same result in every cavity**
Line operation	✕ Normal process variability	✓ **Stabilised operation**

Inserts in production. No longevity issues detected; ongoing longevity evaluation with ZEISS CT scanning.

This case is close to yours if you

- ☐ Mould PET preforms on a hot-runner tool
- ☐ Run recycled content and want a more stable line
- ☐ Colour with masterbatch
- ☐ Want to lower the colourant dosage without losing opacity

Let's look at your line together

Book a free discovery call
keiryo.odoo.com/book/discovery-call

Method: reference without GateMix™ first, then GateMix™, same tool, same material, same settings. Preforms and bottles inspected visually; light transmittance measured on the converter's spectrophotometer. Full reports available under NDA.