

LIGHTWEIGHTING · WATER · 29/25

600 ml water preform: 13 g → 12 g LW neck

–7.7% PET per unit; drop-test and top-load validated; rolled at 93% sustained OEE.

–7.7%	13 g → 12 g	29/25 LW	93%
PET per unit	preform weight	neck variant	OEE at rollout

Industry	Duration	Period
Water	18 months	2025

01 · The challenge

A regional water bottler operating a high-volume 600 ml SKU asked Delta El Nile to lightweight without compromising drop-test and top-load performance on existing filling lines. The starting preform was 13 g with the standard 29/25 neck (2.41 g). Resin cost trajectory and brand sustainability commitments both pointed toward a neck-and-body redesign — but only if line speed, fill performance, and consumer handling could be preserved.

02 · The approach

Delta El Nile re-engineered the preform from 13 g to 12 g, combining an optimized body core profile with the lightweighted 29/25 LW neck (2.21 g, a 0.2 g neck saving). Wall-thickness redistribution maintained structural integrity in critical stress zones. Drop-test and top-load performance were validated against the customer's filling-line and palletization profile before production rollout.

03 · The result

Production rolled at 93% sustained OEE. The 7.7% PET reduction per bottle compounds across the high-volume SKU into significant annual resin savings and a corresponding scope-3 emissions reduction. Filling-line performance was preserved; no consumer-handling complaints recorded post-launch.

WHAT TO DO NEXT**Explore the program path that fits.**

→ **Calculate your own lightweighting savings**

[calculator.html](#)

→ **Open the preform-to-bottle advisor**

[preform-bottle-advisor.html](#)

→ **Start a similar program**

[rfq.html](#)

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