

Technical parts produced with high-end technologies (CFRTP)

APPLICATION: Bottle Opener

MATERIAL: Continuous Fiber-Reinforced Thermoplastic (CFRTP) Composites from Covestro (Maezio™)

HOT RUNNER SYSTEM: 2 Ma Series drops, FLEXflow servo driven valve gate

SPECIAL FEATURES: Family mold application. Overmolding of technical foil insert. Perfectly balanced injection and accurate process control on both parts independently. FLEXflow Technology is the ideal solution for structural and aesthetical applications.

PARTNERED WITH:



APPLICATION DESCRIPTION:

The Bottle Opener project, powered by Proplast and developed in cooperation with HRSflow and a team of other industrial partners, highlights the outstanding potential of FLEXflow Technology with applications of high technical content.

The application consists in molding two completely different cavities with same process settings: full plastic component and back-injected Continuous Fiber-Reinforced Thermoplastic (CFRTP) Composites. The volume ratio of injected material is significant and the application of composites laminate introduce additional complexity on the process management.

Thanks to FLEXflow servo driven valve gate system, the both parts can be molded at same time by using the same settings. The application results fully balanced during injection and allow very accurate control on each cavity independently optimizing the local flow behavior. Bulky and lighter applications with thermoplastic composite can be produced at same time. This technology is suitable for structural and aesthetical parts.

Plastic materials for metal replacement solution is suitable for :

- > Structural and aesthetical parts.
- > All Reinforced Resins (PC ,PA, PA66 ++ % LGF)
- > Multiple organo sheets composite (CFRTP/GFRTP)
- > Bulky and lighter applications

FULL PLASTIC PART



Volume: 23.6 cm³
Weight: 28.3 g
Resin: Polycarbonate Black

COMPOSITE HYBRID PART



Volume: composite sheet 8.18 cm³ + PC Back injected resin 10.38 cm³
Weight: 23.756 g
Reinforce: Carbon Fiber
Structure: 6 symmetric layers (0°, 90°, 0°)
Total Thickness: 1.02 mm