

**oerlikon**  
hrsflow

**R-PET**   
**revolution**  
starts from here



# Aiming for the best customer support

Our team provides you with complete support, from the rheological analysis and design phase to try-out and maintenance. For special applications, we can define the optimal system configuration and predict part quality through advanced hot runner systems available in our Test Lab.

Plastic samples according to the weight, thickness and geometry of your application can be delivered for a preliminary analysis.

## TEST-LAB EQUIPMENT AT YOUR DISPOSAL

- Prototype tools available to try your most challenging polymers
- Full range of nozzles and flow types based on your specific application
- Injection Molding Machines from 50 to 300 tons

**NEW**

### **ENGEL e-speed 280 – IMM**

Hybrid solution to manage R-PET, bio-based and compostable polymers



**NEW!**

High injection pressure up to 2600 bar

High speed injection unit up to 1400 mm/s



Specific screw to manage  
R-PET, bio-based and  
compostable polymers

Intelligent compensation of process  
variations iQ weight control

# Ready for the **materials of the future**

- R-PET has the **lowest carbon footprint** of all recycled resin
- The only one packaging material that can be **processed on industrial scale to recreate Food Packaging** by mechanical recycling
- **Better oxygen barrier** compared to PP and PS

**Best  
Practices**  
V  
V



# Committed to a Green Future

Sustainability is an essential element of the entire injection molding market. We provide hot runner solutions to:

- Process post-consumer resins (PCR) and biopolymers
- Reduce part weight without compromising product integrity
- Maximize production efficiency and minimize scrap



## Eco-friendly applications

Due to the high thermal and shear sensitivity of bio-based and biodegradable polymers, the main challenges with these materials are eliminating the risk of material degradation and shortening the cycle time by yielding a good gate quality.

The optimal solution is a balanced hot runner system characterized by a proper gate configuration, correct channel dimension and uniform thermal profile.

# Vodka body cap

**System type:** Hot Half 24 cavities Vp Series

**Injection type:** Cylindrical Valve Gate

**Molding material:** PET

**Part weight:** 7 g

**Part thickness:** 1.5 mm



## THE RESULT

- Superior gate quality
- Excellent transparency (no white stripes or halos)
- High process repeatability

# Eco-friendly tray

**System type:** Gs series

**Injection type:** Cylindrical Valve Gate

**Molding material:** R-PET

**Part weight:** 450 g

**Part thickness:** 3 mm



By kind permission of **guzzini**<sup>®</sup>

# Sustainable box

**System type:** 8 drops valve gate Ga + 4 drops Aa

**Injection type:** Cylindrical Valve Gate

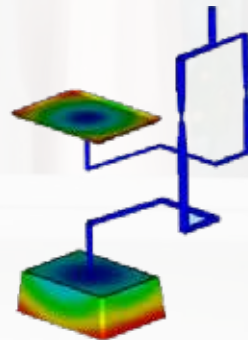
**Molding material:** R-PET

**Part thickness:** 2.5 mm



By kind permission of **PEZZUTTI**

Rheological analysis for  
an accurate result



## THE RESULT

- Optimal part balance
- High aesthetical quality ensured by accurate cooling and gate area
- FLEXflow servo driven valve gate technology allows to easily manage stack family tools
- Dedicated configuration for the end-ring specifically developed for R-PET material
- Uniform cooling to control the component deformation resulting in a shorter cycle time

# oerlikon

hrsflow

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