cerlikonhrsflow



Hot runner solutions tailored to your needs

Our hot runner solutions are engineered to produce high-quality cosmetic components for the Beauty & Personal Care industry, combining **exceptional aesthetics** with strong mechanical performance.

With deep expertise in mold design and process optimization, our team provides **360° support** throughout every stage of your project—from concept to production.



- High-quality cosmetic components
- Suitable for crystal clear parts, even with substantial wall thickness
- Tailored solutions for metallized polyolefins
- Fast and efficient color changes
- Ideal for processing sustainable polymers



For every challenge, our technology

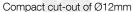
Specialized solutions for hard-to-reach gate locations

Designed for tight-space applications with low shot weights. the innovative **Up nozzle series** enables direct gating in areas with limited access.

KEY BENEFITS

- Compact 15 mm gate-to-gate pitch
- Optimized for hard-to-reach gating areas (such as caps, lipsticks, lip gloss and mascara)
- Exceptional performance with low-weight parts
- Core cooling with in-house SLM technology
- Easy start up
- Optimized for cosmetic polymers with narrow process window







Advanced technology for luxury, eco-friendly applications

Our hot runner solutions are specifically engineered for **high-end cosmetic applications** using the latest generation of PET and co-polyesters even with high percentage of recycled content that are fully compatible with most stringent European advanced PET bottle recycling stream.

KEY BENEFITS

- Glass like shine with luxury appeal
- Impressive wall thickness up to 12 mm
- Prevention of typical flow marks in thick-walled parts



AT YOUR SIDE THROUGH EVERY PHASE OF YOUR PROJECT

- Mold design support with tailored gate optimization
- Rheological analysis to develop material-specific solutions
- Assistance with molding process fine-tuning
- Support during production stage

Experience the results of our technology firsthand

Case study: Glittered Flip Top Cap

High-quality gate, even with a free-flow tip

HOT RUNNER SYSTEM FEATURES		
Molded Material	PP glittered	
Cavities N°	4	
Injection Type	Thermal Gate (Torpedo)	
System Type	4 + 4 drops system Tp Series	

PART DESCRIPTION		
Molded Part	Glittered Flip Top Cap	
Part Weight	9 g + 13 g	
Part Thickness	1.20 mm	

HIGHLIGHTS

- No flow lines, even when using glittered material
- Dedicated system solution engineered with double colour independent runners



Case study: Foaming Pump

Uniform cooling, optimal results

HOT RUNNER SYSTEM FEATURES		
Molded Material	PP	
Cavities N°	32	
Injection Type	Torpedo	
System Type	Oerlikon HRSflow Hot Half, Tp series	

PART DESCRIPTION		
Molded Part	Foaming pump cylinder	
Part Weight	7 g	
Part Dimension	Ø 37 x 75 mm	

HIGHLIGHTS

Thanks to the uniform cooling on the core insert:

- Optimal tolerance on wall thickness and diameter
- No warpage
- Better ejection of the part
- Reduced cycle time



Case study: Lip gloss with cap

High-quality gate finish on parts, even with direct injection

HOT RUNNER SYSTEM FEATURES		
Molded Material	PET	
Cavities N°	8	
Injection Type	Cylindrical Valve Gate	
System Type	8 drops Xp series	

PART DESCRIPTION		
Molded Part	Lip gloss with cap	
Part Weight	20 g (bottle), 6 g (cap)	
Part Thickness	5.6 mm	

HIGHLIGHTS

- High-quality gate finish, even with direct injection
- Dedicated hot runner solution preventing crystallization spots
- Optimized gate configuration to minimize shear stress due to PET's high viscosity
- Specialized hot runner design for bottle and cap injection (different weights/thicknesses) under ideal pressure conditions
- Exceptional cylindrical straightness ensured by uniform melt flow



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 170 to 300 tons





Oerlikon HRSflow Italy

Production Plant
Headquarter
Via Piave, 4 - San Polo di Piave
31020 Treviso
Phone +39 0422 750 111
info hrsflow@oerlikon.com

Oerlikon HRSflow China

Production Plant INglass Tooling & Hot Runner Manufacturing (China) Co. Ltd No. 385, Road No. 18, Xiasha, Hangzhou Econ. & Tech. Devel. Area Zhejiang 310018 Phone +86 571 86686900 china.hrsflow@oerlikon.com

Oerlikon HRSflow USA

Production Plant
Oerlikon HRSflow USA, LLC
920 74th Street - 49315 Byron
Center, MI
Phone +1 616 228 6900
usa.hrsflow@oerlikon.com

