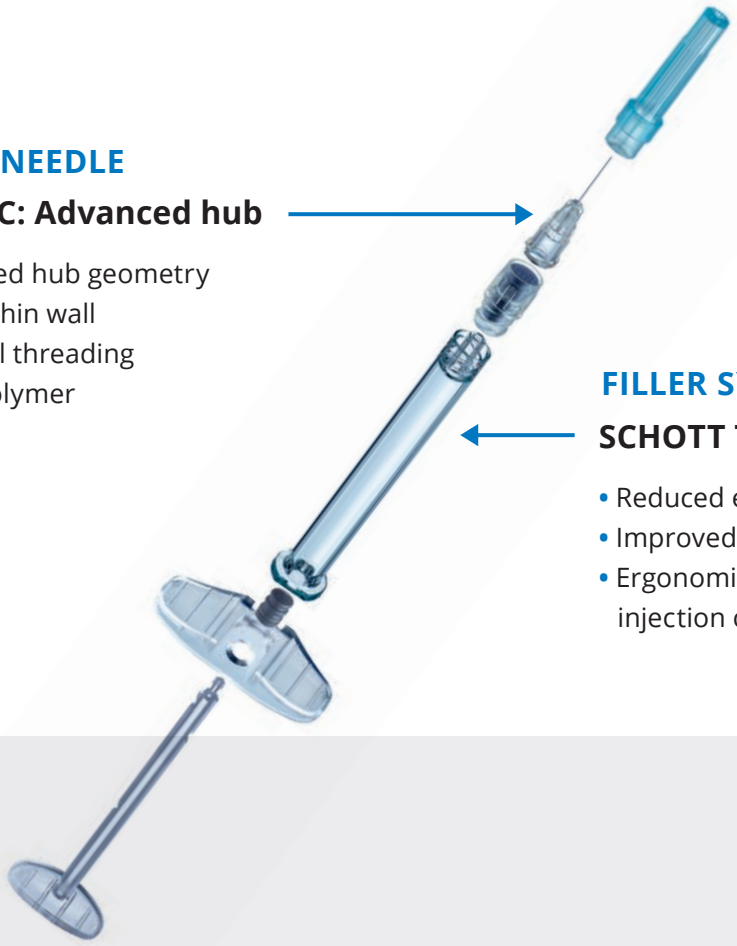
Filler injections made perfect.

*Based on internal testing performed by SCHOTT conducted in July 2018 in St. Gallen.
For more information please contact pharmaceutical_packaging@schott.com

Being partners of choice in aesthetic injections, TSK and SCHOTT each have superior solutions but show an even more outstanding performance together.



FILLER NEEDLE

TSK HPC: Advanced hub

- Advanced hub geometry
- ULTRA thin wall
- External threading
- Hard polymer

FILLER SYRINGE

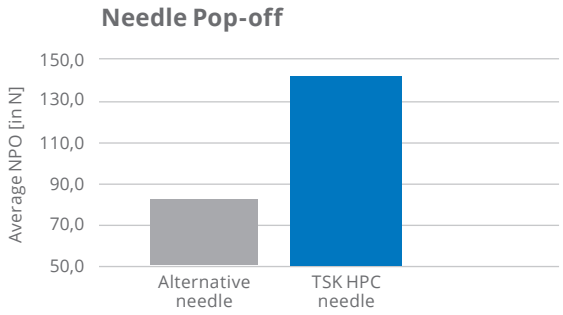
SCHOTT TOPPAC® cosmetic:

- Reduced extrusion forces
- Improved dose accuracy
- Ergonomic components for injection comfort

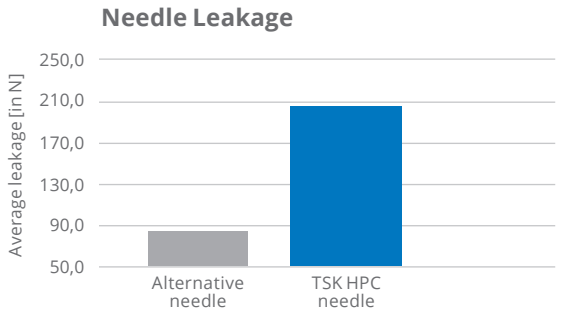
Superior combination

High viscous dermal filler gels in combination with small sized needles cause high pressure inside the syringe. Therefore a robust syringe system and optimized injection forces are essential for a gentle administration.

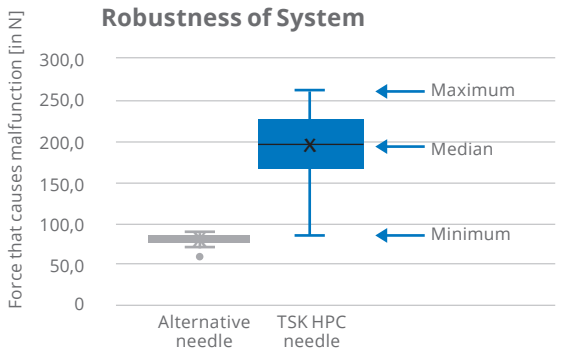
A dermal filler needle from TSK as well as a market alternative filler needle have been tested with the polymer pre-fillable syringe from SCHOTT in terms of needle pop-off and leakage. Results show that the functionality of SCHOTT TOPPAC® cosmetic together with the TSK HPC needle hub allow for an improved injection performance with less risk of injection malfunction.



Pop-off: TSK and SCHOTT combination resists more than 1.5x more pressure before pop-off occurs
An average force which is nearly 70% higher needs to be applied before needle pop-off occurs with the TSK HPC needle



Leakage: TSK and SCHOTT combination withstands 2.5x more pressure before leakage occurs
An average force which is nearly 150% higher needs to be applied before leakage occurs with the TSK HPC needle



Robustness: TSK and SCHOTT combination endures where others fail
At 95 N (according to tests the average maximum force a user can apply to the syringe*) the combination showed no single failure while others showed either needle leakage or pop-off

* A. D. Astin, Finger Force Capability: Measurement and Prediction Using Anthropometric and Myoelectric Measures, Faculty of the Viriginia Polytechnic Institute and State University, Blacksburg, VA, USA, 1999.

Testing approach:

By simulating a regular dermal filler injection process, an increasing force was applied on the plunger rod until a malfunction, being either needle leakage or pop-off, occured. The maximum force (in N) was determined in the moment when any of these failures happened.

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