



Packaging for your life.



**TOP TUBE CLOSURE
FOR PLASTIC TUBES**

TOP TUBE CLOSURE: INNOVATIVE AND RELIABLE

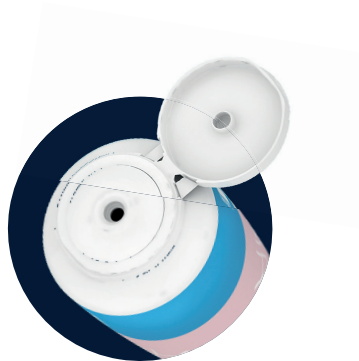
The closures on our plastic tubes are a key functional element. They have to be **durable**, **easy to use** and **reliable**, in order to create an optimal product experience for customers.

Our innovative TopTube closure focusses on **material reduction**. The tube's shoulder takes over the function of the cap's head plate. The cap head plate can therefore be omitted.

FUNCTIONALITY

The TopTube closure has a **"middle closing" system**: To reclose the cap, the user has to **press the center of the head plate**, and not – as with most other standard fliptop closures – in the front area of the cap.

The cap and tube were subjected to **extensive tests before market launch**, all of which were passed.



YOUR BENEFITS

- The closure ensures that the product is dispensed correctly, the opening is **customised to the product**.
- The closure seals **reliably** in all application scenarios.
- The **durability** of the closure ensures functionality until the tube is completely empty.
- Also available for diameters 30 mm + 35 mm from 2025.

COMPARISON WITH OTHER CLOSURES

Compared to other available fliptop closures, the award-winning TopTube enables considerable material savings.



Closure (Tubes with Ø 50 mm)	TopTube PE	Low Profile PE/PP*	Standard Advantage Line PP
Weight	2.01 g	eg. 5.6 g / 5.4 g**	eg. 7.1 g**
Restitution rate	98 %	98 %	98 %
Necessary extension of the tube sleeve	+ 0 mm	+ ~ 6 mm	+ 0 mm
Print status sketches/ print data	no changes necessary	must be adjusted due to the tube length	no changes necessary

*Low Profile closures available in diameters 35, 40 and 50 mm. ** Depending on version/manufacturer.



With the Low Profile closure, the tube sleeve must be extended accordingly due to the angular shoulder shape.

IN-HOUSE TESTING

To ensure all requirements and an optimal product experience, various tests are carried out during qualification, but also in series production during the incoming goods inspection and in-process controls.

Examinations performed during qualification

- Dimensional checks (diameter, height, opening diameter, height difference between outer wall and thread, diameter cam holder)
- Tightness (water bath/compressed air)
- Fliptop opening force
- Tear-off force (tearing of the cap from the tube)
- Shear force (torque of the fliptop closure until hinge breaks)
- Hinge strength (repeated opening and closing)

Examinations performed during incoming goods control based on random samples

- Cross-check of the supplier certificate of analysis
- Injection moulded part/closure identity check
- Check of colouring analogous to colour template under standard light
- Moulding point correctly formed
- Fliptop opening force
- Shear force (torque of the fliptop closure until hinge breaks)
- Hinge strength (repeated opening and closing)

Examinations performed during in-process controls

- Injection moulded part/closure identity check
- Correct function of the 100% test equipment for monitoring cap assembly
- Cap alignment
- Tightness (water bath/compressed air)