

HUSKY[®]

Are you ready
for tethering?

The Essential Guide to Tethered Closures



Taking advantage of the tethered closures opportunity.

In the EU, tethered closures will soon be mandatory for most single-use plastic containers. We expect other regions around the world to adopt similar legislation in the near future.

Are you ready? How do you navigate this challenge and opportunity?

This guide provides answers to these key questions and more.

We will cover:

- ✓ Why switch to tethered? The requirements and opportunities
- ✓ Tethered design best practices
- ✓ What's involved and how to get started
- ✓ A gallery of sample designs for inspiration

Why switch to a tethered closure?

Across the globe, there are three primary reasons why beverage brands are switching to tethered closures for their PET bottles.



Compliance

In Europe, the EU Directive 2019/904 made tethering mandatory for all single-use PET bottles under 3L. Producers have until July 2024 to achieve compliance. Other countries around the world are close behind in their plans to make tethering mandatory.



Differentiation

Consumers are always interested in novel packaging solutions, and tethered closures give brands a great opportunity to deliver that. Tethering is still in the early phases of adoption, which provides brands with a window of opportunity to introduce a unique, premium experience before their competitors do.



Sustainability

Many brands are switching to tethered closures as part of their overall sustainability commitments, helping to reduce unrecovered plastic waste. Consumers are also demanding more sustainable and environmentally friendly packaging. Tethered closures send a great message that you are committed to sustainability.

Getting the design right.

There are many different ways to approach tethering. Husky has tested hundreds of pilot designs in order to develop our comprehensive portfolio of tethered closure solutions.

So what makes a great tethered closure design?

The first thing is compliance. In the EU, tethered closures must meet certain minimum performance standards.

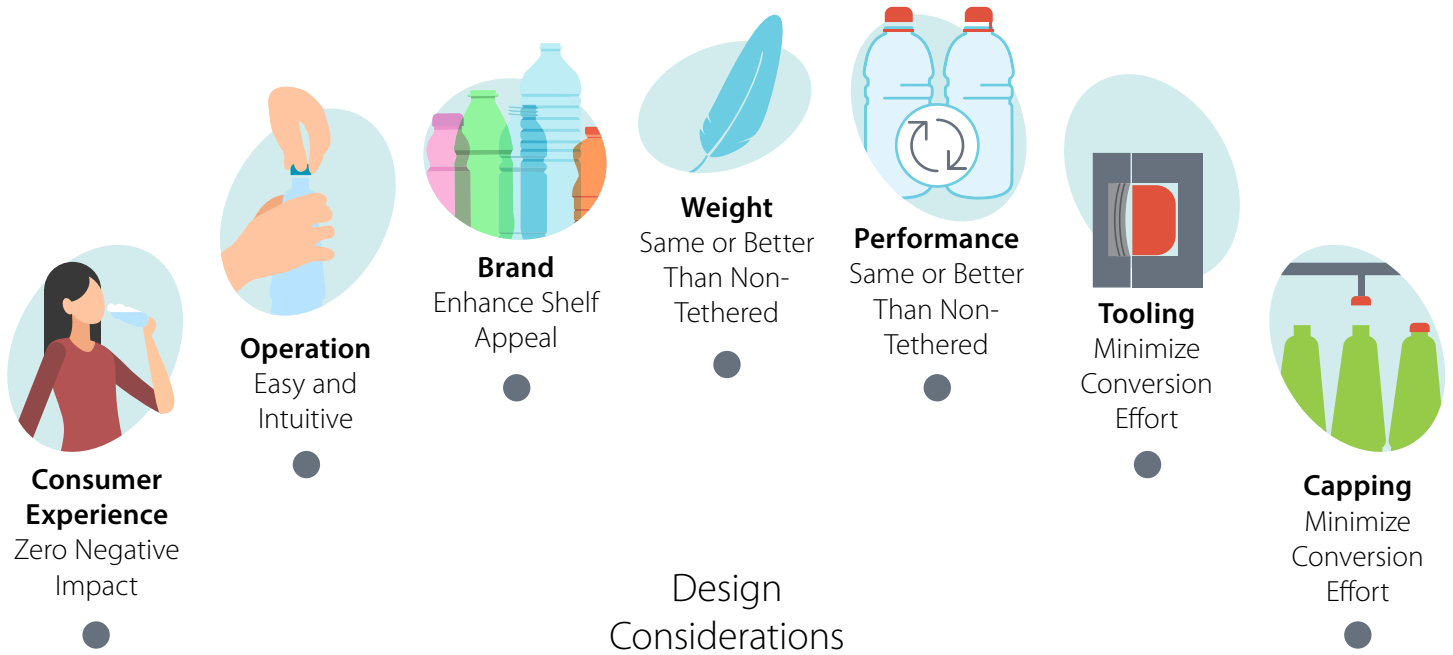
For example, the tethering system must be able to withstand:

- 15 openings & closings
- 25 N of pull force

After compliance, the next most important consideration is the consumer experience. The wrong tethering design can create a negative experience and potentially damage the perception of your brand. But this is not all. There are many other important factors to consider when planning your closure design...

Seven key design considerations for tethered closures.

Husky's holistic tethered design process takes into account seven critical factors.



The two main manufacturing approaches.

The closure design is closely intertwined with the manufacturing process used to create the closure. Some systems offer more design freedom than others. There are two primary manufacturing approaches to form the tamper-evident band: the “slit” approach and the “molded-in bridge” approach.



Slit Approach

- Tethering is created through a post-mold scoring operation (heated blade) that creates the tethering system
- A basic, compliant approach with little design flexibility in terms of incorporating sophisticated tethering systems



Molded-In Bridge Approach

- Tethering is created by slides that form the tethering system, thereby enabling more design freedom and the capability to incorporate complex tethering geometry
- Requires no post-mold operations to the closure

What's involved?

Here are the most common steps and considerations involved in switching to a tethered closure solution.

Needs Analysis

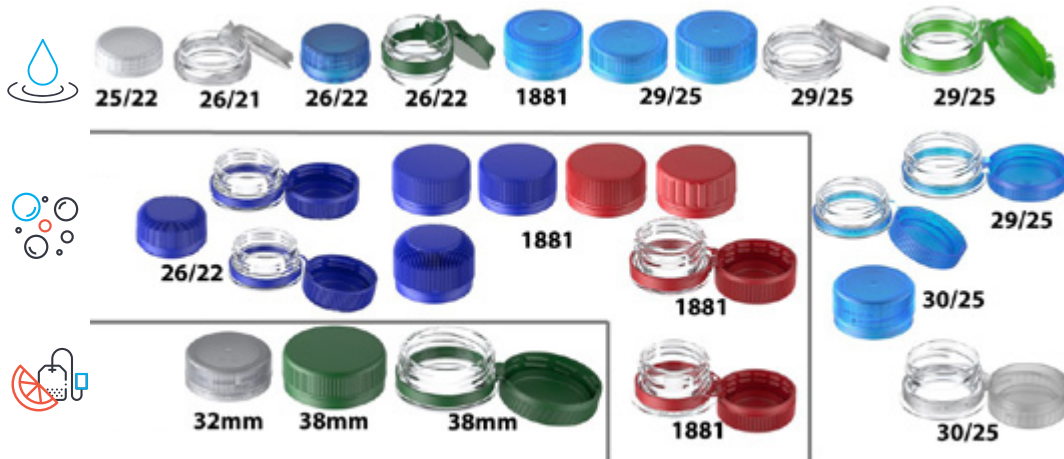
During this step, we determine design objectives and priorities, considering:

- Beverage type
- Brand product positioning
- Desired dispensing system finish
- Performance criteria
- Weight targets
- Resin and master batch combination
- Part quality expectations

Industry Standard Solutions

If your current application and neck finish meet one of the common industry standards you can choose from our validated portfolio of standard and premium tethering options.

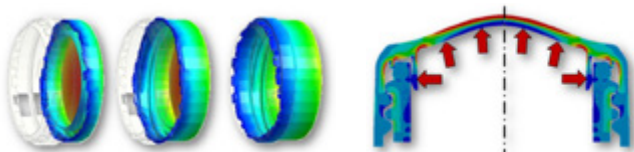
Our family of tethered solutions cover water, CSD and JSDT applications. Our portfolio fits all of the industry standard neck finishes.



Custom Tethered Solutions

For non-standard finishes or applications requiring specific functionality, we adhere to an objective and proven custom design methodology.

We also leverage a variety of simulation tools to save on development time and cost.



Real World Examples

Husky has designed a wide variety of standard and custom tethered closures for customers around the world.

Here are a few real-world examples showing the flexibility, adaptability and premium consumer experience made possible with tethered closure designs.

Premium Locking Closure



This closure was produced for a standard PCO 1881 neck finish. The patented design features an integrated hinge that allows the shell to be locked in place when open. This avoids interference when drinking and provides pleasing auditory and tactile cues.

Snap-Syle Closure



This 29/25 snap closure is a lightweight tethered option suitable for still water applications. It provides a premium experience, with a locking shell and easy, single-handed operation.

Locking Closure with Wide Support Ledge



This closure was produced for a standard PCO 1881 neck finish that features a large diameter support ledge. An integrated groove within the closure shell allows it to be locked in place without interference from the support ledge. This design highlights the flexibility of tethered closure designs to meet your existing bottle designs.

An Easy-Closing Design



This patented, innovative tethered closure design includes an integrated cam on the top panel. This feature promotes positive alignment of the shell to the neck finish, enabling easy re-closing in one fluid motion.

Learn more.

Talk to us about your tethered closure needs.

Get in Touch »

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