SPIRAL TIP *for* COLOUR CHANGE

mastip™ hot runner solutions

Background

Moulding companies often face challenges when it comes to colour change. To address this, our R&D team set out to develop a more efficient solution for the moulding process. This led to the development of the Spiral Tip, a design specifically engineered to improve colour change performance and streamline production.

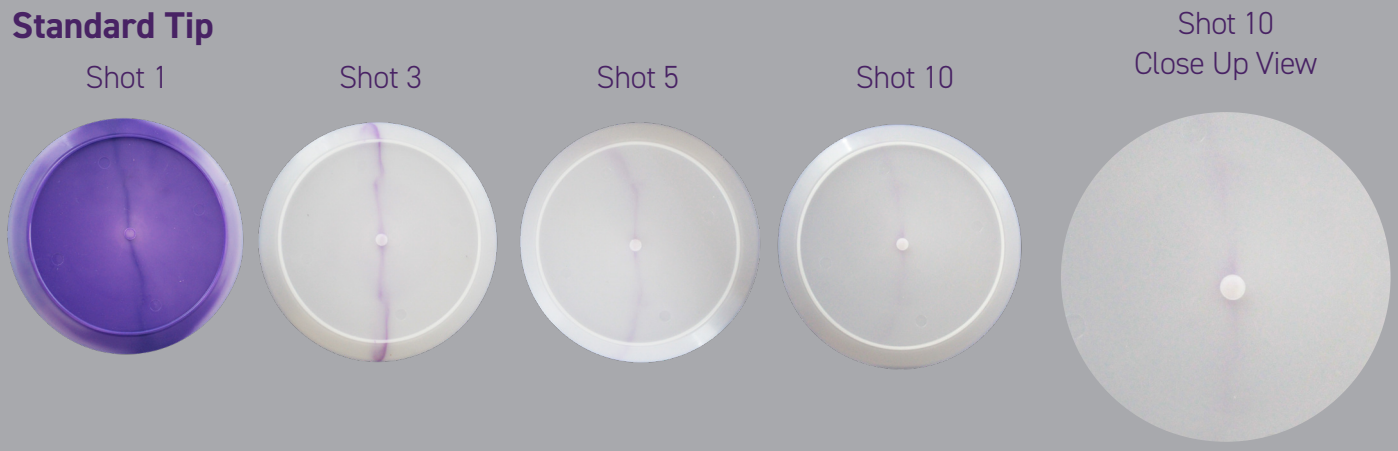
Objective:

- Time required for complete colour transition
- Material wastage during colour change
- Consistency of the new colour upon full changeover

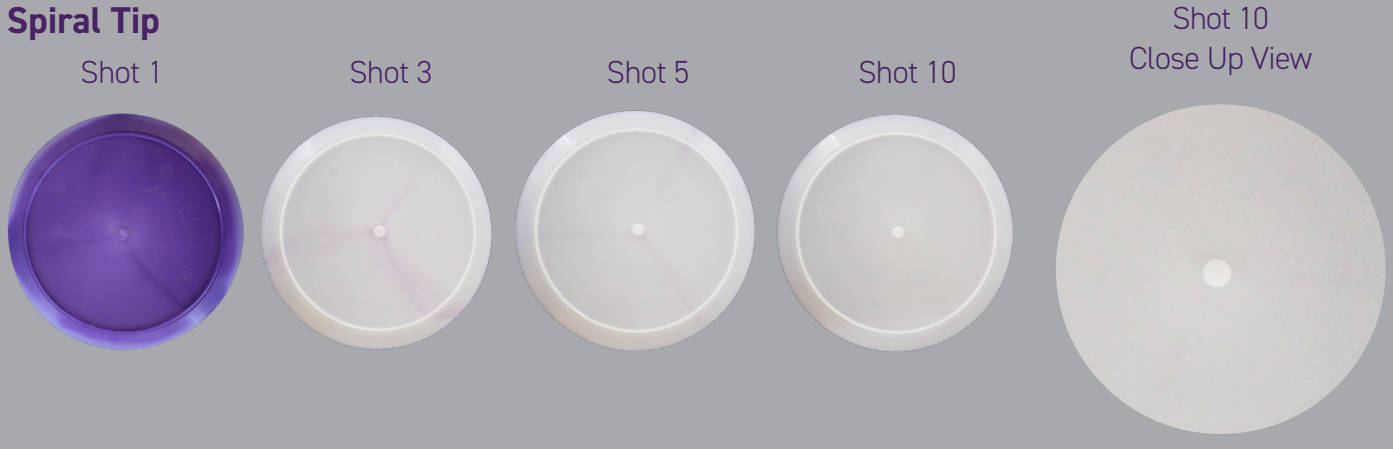
Mould Testing:

We conducted tests using a two-drop thermal gate tool with purple and clear polypropylene. The first test featured our standard tip, followed by a second test using our new spiral tip.

Standard Tip



Spiral Tip



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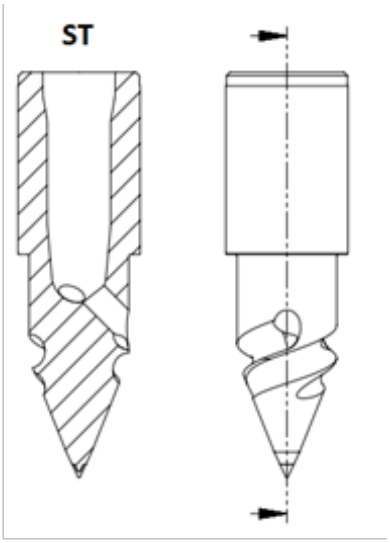
Results:

- Reduction in Color Change Time: For this test the spiral tip reduced the colour change duration by 50% compared to the standard tip, significantly improving production efficiency.
    - » Results obtained in a development environment
    - » Injection barrel purged before colour change
- Lower Material Waste: The new design led to a 50% reduction in colour change, decreasing production costs.

Conclusion:

The implementation of a spiral tip proved to be a viable solution for improving colour change efficiency. The improved colour change led to less material waste and more machine uptime.

This case study showcases how Mastip's innovative spiral tip design effectively overcame a common injection moulding challenge, making it an ideal solution for high cavity cap and closure moulds with frequent colour changes.



Mastip Head Office New Zealand
Phone: +64 9 970 2100
Email: mastip@mastip.com

Mastip Regional Office Europe
Phone: +33 0 809 400 076
Email: mastip@mastip.eu

Mastip Regional Office North America
Phone: +1 262 644 9400
Email: northamerica@mastip.com

Mastip Regional Office China
Phone: +86 755 84193188
Email: china@mastip.com

Mastip Regional Office Vietnam
Phone: +84 93 8877488
Email: quang.pham@mastip.com