**HASCO mould with additively manufactured hot runner system**

For the further development of the Streamrunner and also for customer demonstration purposes, HASCO hot runner has developed a new and innovative 32 cavity injection mould tool. The mould, that will produce shopping trolley tokens, will be trialled in our in-house injection moulding technical centre.

The special feature of the mould is the innovative 32-cavity HASCO Streamrunner. The additively manufactured hot runner manifold offers mouldmakers and injection moulders unprecedented freedom in design and opens the door to new design possibilities in mouldmaking. The 100% leak-free manifold offers particularly gentle passage of the melt and makes for considerably lower shear in the material, resulting in better quality mouldings. The flow-optimised design speeds up colour changes and material too. Through the use of the additive manufacturing process, very compact designs can be produced with a nozzle pitch down to 18 mm and minimum manifold height of 26 mm.

With the new test mould, the hot runner specialists at HASCO hot runner now have additional possibilities to obtain further knowledge in the application of additively manufactured hot runner manifolds, especially in the high-cavity segment. The first series of tests have confirmed all the advantages in the balancing of the Streamrunner. A filling study showed from the very beginning a very uniform opening behaviour of all 32 nozzles and synchronous filling of the individual cavities. In the coming months, further trials will be carried out with a wide variety of different thermoplastics. Furthermore, special tests are also planned in the field of colour change as well as individual maximum load tests.

In addition to the Streamrunner, numerous standard quality mould components are used in the token mould. Heat sensors additionally integrated in the system show a highly uniform temperature profile and confirm the previously carried out thermal simulations.

The new tool locks Z730/… secure the mould from unintended opening, whereby the smaller variation of the lock secures the ejector plate. The cycle counter A57300/… integrated from left counts every shot. The overall moulding tool is coordinated precisely through corresponding pressure plates. Numerous DLC-coated components ensure accurate and low-wear guiding and centring.

Apart from the above-mentioned tests, other innovative product ideas for the extended use of the Streamrunner will be tested very soon with the new injection moulding tool. These product ideas are already at the preparation stage.

05/2021