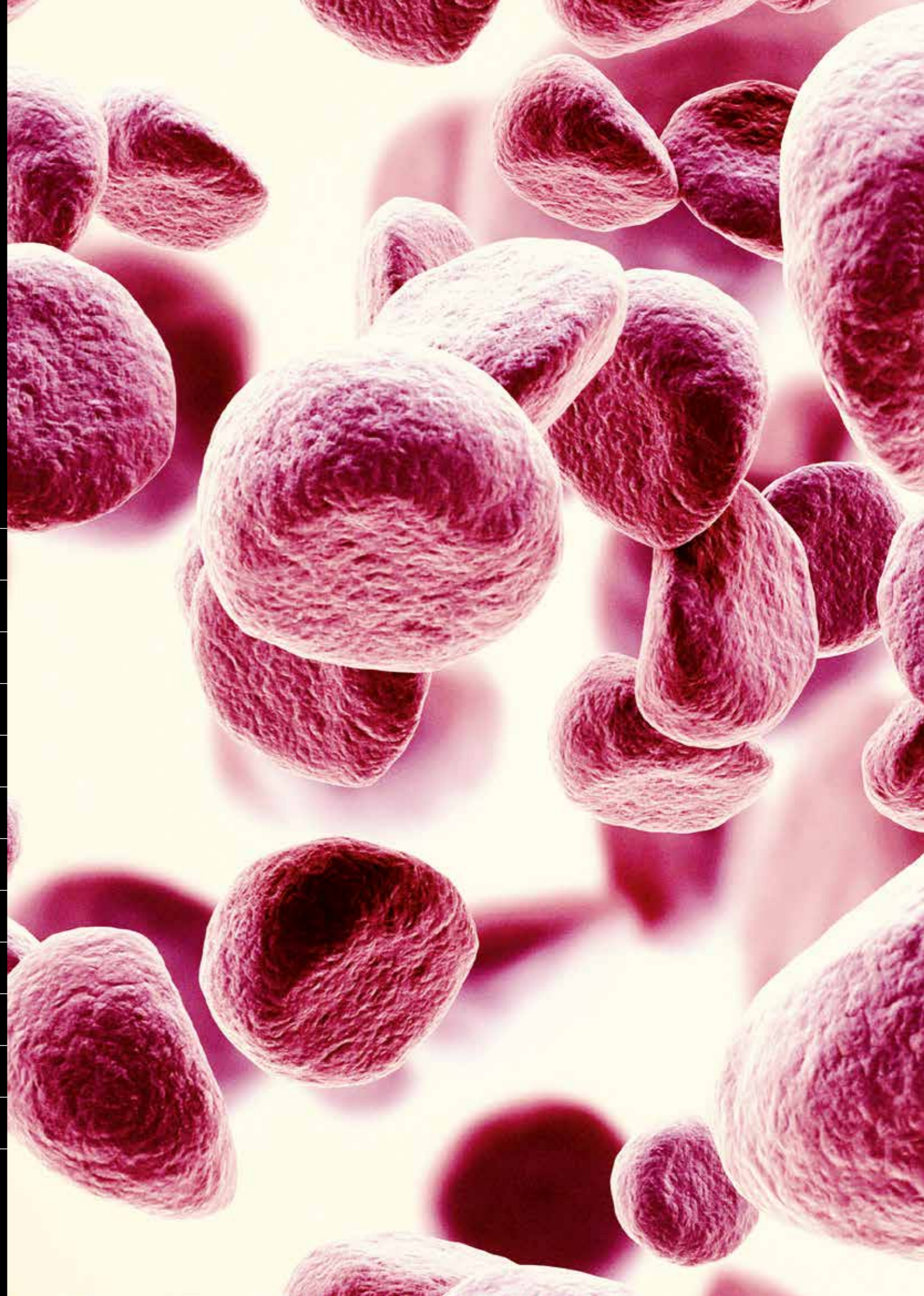




z-microsystems is specialist for microfluidic consumables and lab-on-a-chip applications, from development to high volume production of micro-structured plastic parts. micro-tooling and micro injection moulding is our passion. 60 years of experience and a fresh and dynamic team is awaiting you. we would like to be your inspiring partner from the idea to high-volume production.





1

engineering & micro mould design

our team supports customers from the development phase with their experience as well as with simulation analysis

optimization of the fluidic design in terms of producibility (design for manufacturing)

flexible and innovative mould solutions to assist our customers during their development steps

first sampling and pre - production, testing of different resin material and determining the most efficient moulding process

assurance of the required quality by testing according to certified QC protocols

2

tool-shop & prototypes

in-house tool-shop with particular know-how in manufacturing of micro structures

- *surface roughness down to Ra 0,01*
- *radii down to 1 µm*
- *tolerances and position accuracy down to +/- 1 µm*

special equipment for micro die sinking, wire-EDM, diamond cutting and 3D micro milling

moulding with silicon- or nickel-inserts

optimized moulds for clean room production

3

micro injection moulding

micro and standard injection moulding with emphasis on lab-on-a-chip and microfluidic consumables

validated moulding process with the technological capabilities of injection compression moulding, evacuating the cavities, variothermic processing and multiple component injection moulding

production under clean-room conditions (ISO class 6)

automated handling system

process monitoring with automated separation of parts beyond the defined process tolerances

quality assurance with optical and tactile methods

4

post moulding process

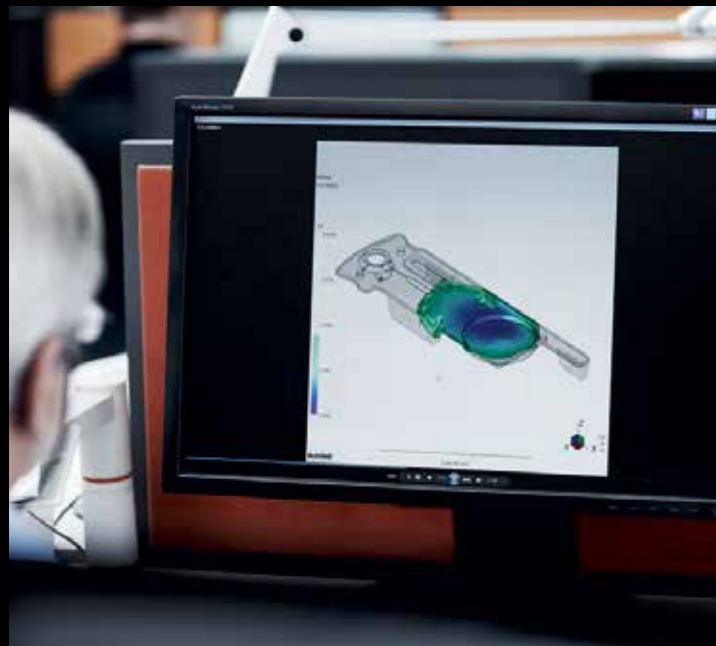
bonding of fluidic chips to get a sealed system with the appropriate bonding technique

sealing of channel structures with film or additional chips

laser, ultrasonic, thermal bonding and laminating are state of the art

coatings for additional functions

assembling and individual packaging in-line under clean room conditions



product engineering design for manufacturing



mould technology always one step ahead



clean room manufacturing for a sustainable quality



process reliability from the first to the last shot

