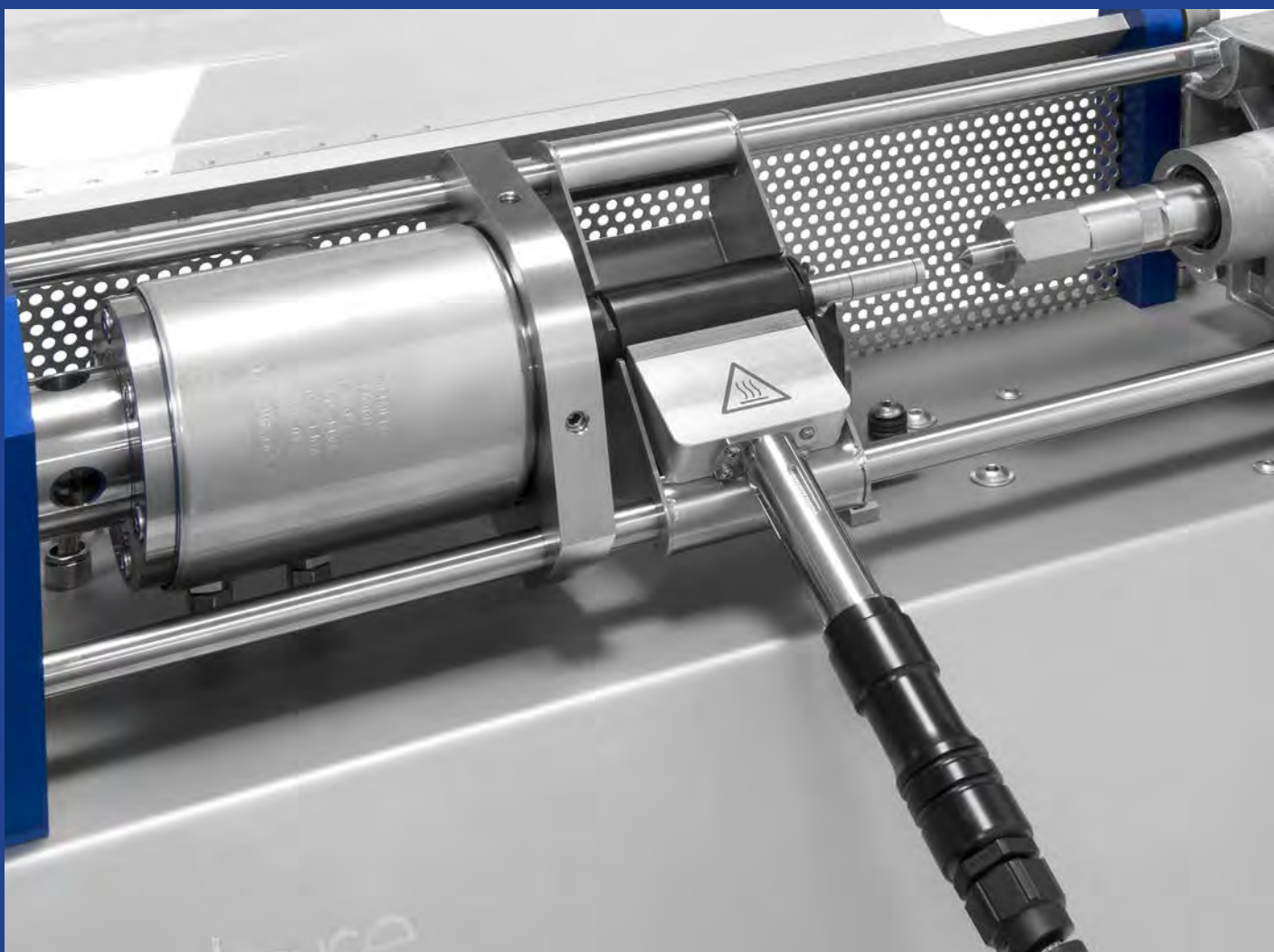


# Xplore IM12 micro injector

Reliable, reproducible and fast R&D results



# Xplore IM12 microinjector: your platform for formulation development

This Xplore IM12 microinjector has a maximum shot volume of 12 ml and easily fits on your laboratory bench or in a hood. The instrument is best used in combination with our MC 15 twin-screw micro compounder. If there is no need to mix materials, it can also be used as stand-alone. Now you can test and evaluate new or expensive materials and formulations in a very reliable, fast and cost-effective way with small amounts of the test material.

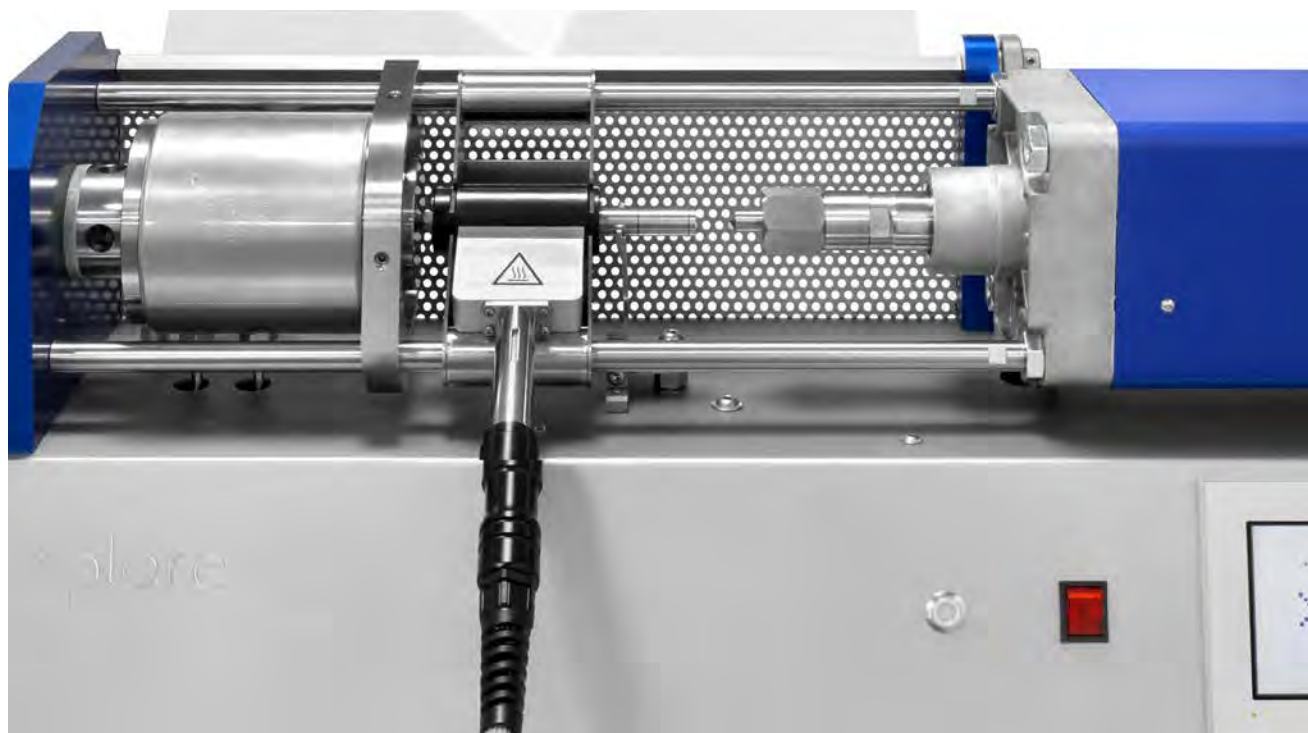
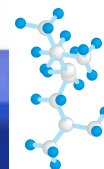
The core of the IM 12 consists of a temperature-controlled mould housing for a conically shaped mould, in combination with a heated, removable transfer unit. The divisible, conically shaped moulds are fitted into the housing in such a way that opening during injection is prevented. As a result, the flashing of the injected material belongs to the past.

Compounded material is injected into the temperature-controlled mould (either heated or cooled) with a plunger powered by compressed air. Via the clear ml markings on the piston, the amount of material left in the transfer unit can be easily determined. Holding pressure and time are controllable to avoid shrinkage of the moulded test sample.

The mould is then removed from the machine and opened by hand. The injection unit is easily removable and can quickly be filled by either compounded material directly from our micro compounder or manually with powder or granules.

Depending on the mould volume, several injection cycles can be performed with one batch from one of our Xplore micro compounders. Alternatively, several different cavities can be fit into one mould; hence one injection cycle gives more than one test sample. The standard mould geometries include certified dog bone-shaped tensile bars, Izod bars and many more. As customer service comes naturally, we produce your unique geometries on request.





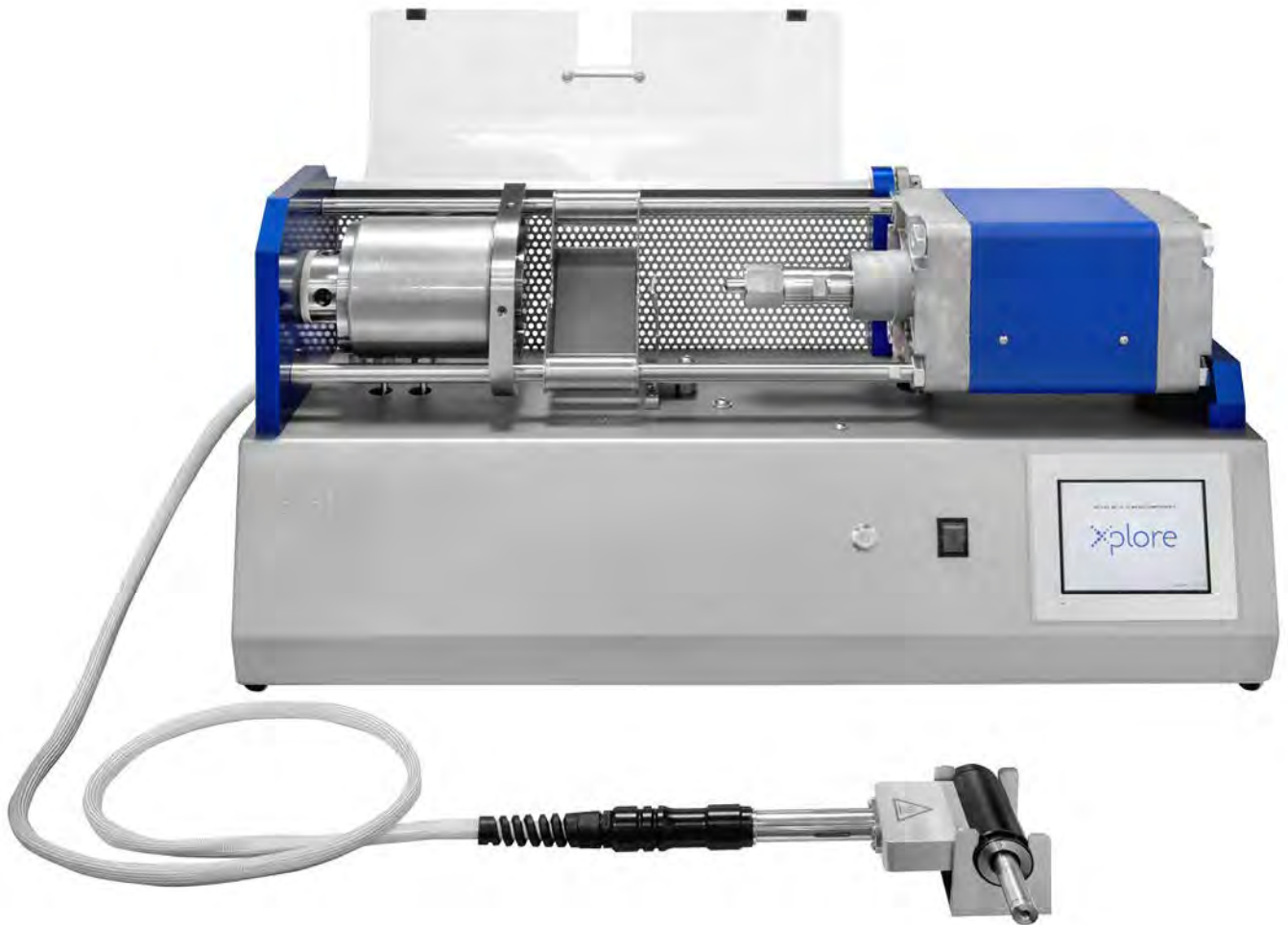
More than 30 years of Dutch craftsmanship, dedication to perfection! For those who are never satisfied: better mixing, more reliable and faster R&D

Built the Xplore way for extreme durability and reliability, the IM 12 features an unprecedented 1800 bar injection pressure. This results in that any polymeric or elastomeric material with higher viscous properties will for sure be injected into the mould, furthermore "sink marks", due to shrinkage of the material after moulding, are belonging to the past. Besides, advanced temperature control and the possibility to cool the mould below ambient temperatures enables you

to even release sticky materials quickly from the mould. Also, its improved design simplifies service and maintenance furthermore. Our top-notch specifications guarantee you faster operations, ease of injection of the material into the mould at a higher cycle speed of injection moulding. The Xplore IM 12 will thus further simplify and accelerate your R&D.

Xplore IM 12: your trump to beat the competition. This is not a want to have, but a must to have for every serious R&D organization and quality control lab working with plastics, rubbers compounds or elastomers.





#### Technical Specifications:

- Maximum shot volume: 12 ml (capacity of removable injection unit)
- Cavities: up to 12 ml (depends on the desired shape of your test sample)
- Divisible, either heated or cooled, mould
- Programmable cycle run (maximum reproducibility, including holding pressure for a non-shrunk test sample)
- Maximum injector temperature: 450°C
- Maximum mould temperature: 300 °C
- Two controlled heating zones
- Possibility to cool the mould in combination with cold medium
- Maximum injection force: at 10 bar 12 kN (1200 bar), at 16 bar 18 kN (1800 bar)
- Heating time of injection nozzle (from 20 to 240 °C): less than 8 min
- Supply voltage: 208 - 240 V AC, other on request
- USB Port for data acquisition
- Overall dimensions (l x w x h): 84 x 33 x 35 cm
- Weight: 50 kg

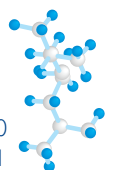
#### Optionally:

- Custom-made mould design on request, expert level in house, we rapidly design your specific mould cavity.

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