

Xplore IM 5.5

micro injection moulder

Reliable, reproducible and fast R&D results



 plore

The platform for
formulation development

This small Xplore micro injection moulder with a maximum shot volume of 5.5 ml easily fits on your laboratory bench or in a hood. The instrument is best used in combination with our MC 5 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 very small amounts of test material.

The core of IM 5.5 consists of a temperature controlled mould housing for a conically shaped mould, in combination with a heated, removable transfer unit. The divisible, conically shaped mould is fitted into the housing in such a way that opening during injection is prevented. As a result flashing of material belongs to the past.

Compounded material is injected into the temperature controlled mould with a plunger powered by compressed air. 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, one or two injection cycles can be performed with one batch 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 special geometries on request.



Technical Specifications

- Maximum shot volume: 5.5 ml (capacity of removable injection unit)
- Cavities: up to 5 ml (depends on the desired shape of your test sample)
- Divisible, heated mould
- Programmable cycle run
(maximum reproducibility; including holding pressure for a non shrunk test sample)
- Maximum injector temperature: 400 °C (Optional 450 °C)
- Maximum mould temperature: 300 °C
- Two controlled heating zones
- Maximum injection force: at 10 bar 12 kN (1200 bar), at 16 bar 18 kN (1800 bar)
- Heating time of injection nozzle (from 80 to 240 °C): less than 10 min
- Supply voltage: 208 - 240 V AC, other on request
- USB port for data acquisition
- Overall dimensions (l x w x h): 65 x 25 x 30 cm
- Weight: 30 kg

Optionally

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

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