

### High Temperature Constant Thickness Film Maker

**Enables preparation of reproducible thickness polymer films with melting points up to 400°C.**

Transmission measurements on thin films are one of the most efficient ways of analysing polymers and additives in the infrared. Sample preparation for this technique has been the most critical factor in its success. The High Temperature Film Maker is the quickest and most convenient, direct method of solvent free sample preparation.

**The High Temperature Film Maker prepares reproducible thickness films from 15 to 500 microns from polymers with melting points up to 400°C. Finished films can be prepared in as little as 10 minutes.**

The sample is put into a preformed non stick aluminium dish and placed into the accessory.

Pressure is then applied between two heated platens set to the polymer softening temperature. Any excess sample runs into a trough and does not affect the film thickness.

Once the sample is formed it is cooled using the integral water cooling system. The thin film is placed into a Specacard

ready for direct transmission analysis and storage.

The accessory is a lightweight, compact and easily installed system comprising platens with integral heating and cooling. Fully compatible with all Graseby Specac hydraulic presses, the film maker has full safety features. Non drip water connections, thermal cut out protection, low voltage heaters, and safety guards are standard.

The High Temperature film maker is the ideal solution for polymer laboratories frequently involved in quality assurance, material control and quantitative measurement. Diverse research laboratory applications can also be handled.

#### Features

- Controlled temperature up to 400°C.
- Produces 15, 25, 50, 100, 250 and 500 micron films, 29mm diameter.
- Complete film production in typically 10 minutes
- Digital display of sample and set temperatures.
- Integral heating and cooling systems.
- Quick fitting non drip water connections.
- Temperature cut-out switches, guards and low voltage safety.
- Digital sample and set temperature displays.

#### Applications

- Quality control analysis of polymers.
- Beads, foam, fibres and powders.
- Thermal properties of polymers.

## Specification

Temperature range	: Ambient to 400°C
Pressure required for pressing	: 1 to 2 tons (Maximum load 2 tons)
Nominal thickness of films	: 15,25,50,100,250,500 µm
Diameter of pressed film	: 29mm
Integral heated platens	: 30 volts (low voltage for safety )
Integral cooling system	: Water cooling using quick-fit non-drip connectors (4.5mm i.d.tubing)
Temperature controller	: Digital automatic with dual temperature indicators (set and sample).
Heating rate	: 17mins. to 400°C
	: 8mins. to 300°C
Cooling rate at 1 litre/min flow	: 22mins. from 400°C to 60°C
	: 19mins. from 300°C to 60°C

### Thermal safety cut-off switches

On cooling blocks	: 70°± 3°C cut-off
	: 55° + 4°C Reset
Weight	: 2.5 kg

## Ordering Information

**P/N 15800** High Temperature Film Maker  
(220v, 50Hz)

- Includes:**
- 15, 25, 50, 100, 250 and 500 microns spacer rings.
  - Packet (200) aluminium disc foils.
  - Stainless steel forceps.
  - Aluminium foil sample cup making tool.
  - A packet of 20 Specacards 10mm diameter clear aperture.
  - High stability (0.25°C) digital automatic temperature controller (ambient to 400°C).
  - Quick-fit non-drip water connectors.

**P/N 15801** High Temperature Film Maker  
(110v,60Hz)

### Spares and Consumables

**P/N 15627** Packet (200) aluminium disc foils.

**P/N 3800** Packet (100) of 10mm diameter aperture Specacards.

**P/N 3810** Packet (100) of 10mm x 25mm aperture Specacards.

**P/N 3815** Filing rack for Specacards (holds 36 cards).

**P/N 3820** Magnetic film holder (25mm clear aperture).

**P/N 3805** Packet (20) of teflon retaining rings for supporting elastic film samples.

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