

Sample Prep

High Temp. 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 re-producible thickness films from 15 to 500 microns from polymers with melting points of 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 an 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 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.



Key Features

- Controlled temperature up to 400°C.
- Produces 15, 25, 50, 100, 250 and 500 micron films, 29mm diameter.
- Complete 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.

Applications

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

Illustrations, descriptions and specifications in this datasheet were correct at the time of going to press. However, Specac's policy is one of continuous product development and we reserve the right to change descriptions and specifications at any time.

For the latest details please contact your local Specac office or representative.

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Specifications

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	17 mins. to 400°C 8 mins to 300°C
Cooling rate at 1 litre/min flow	22 mins from 400°C to 60°C 19 mins from 300°C to 60°C
Weight	2.5 kg
Thermal safety cut-off switches	
On cooling blocks	70° ± 3°C cut-off 55° + 4°C reset

Ordering Information

GS15800 High Temperature Film Maker

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

Please specify required voltage and country of use

Spares and Consumables

GS15627 Packet (200) Aluminium disc foils
 GS03800 Packet (100) of 10mm diameter aperture Specacards
 GS03810 Packet (100) of 10mm x 25mm aperture Specacards
 GS03815 Filing rack for Specacards (holds 36 cards)
 GS03820 Magnetic film holder (25mm clear aperture)
 GS03805 Packet (20) of teflon retaining rings for supporting elastic film samples

SPECAC LTD.,
 River House 97 Cray Avenue, Orpington,
 Kent. BR5 4HE UK
 T: +44 (0) 1689 873134 F: +44 (0) 1689 878527
 E: sales@specac.co.uk Registered in England No. 1008689

SPECAC INC.,
 301 Berkeley Drive, Swedesboro, NJ 08085 USA
 T: Toll Free +1 800 447 2558
 E: sales@specac.com W: www.specac.com
 Specac is part of Smiths Group plc

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