

APPLICATION SHEET

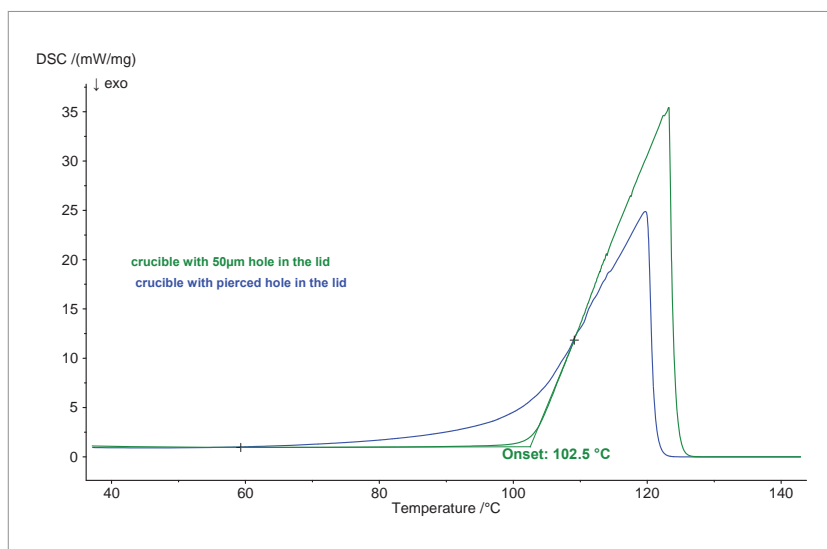
DSC Accessories – Al Crucible with Laser-Cut Lid

Suppression of Evaporation of Solvents and Other Volatiles

For special applications such as boiling point determination for volatile substances or gypsum investigations, Al lids with a laser-cut hole (50 μm) can be used. The lids can be cold-welded to the standard Al crucible.



Al crucible with laser-cut lid, see also *Accessories for Differential Scanning Calorimeters and Thermobalances*



Using Al crucibles and lid with laser-cut hole (\varnothing 50- μm) suppresses evaporation of solvents and other volatiles (heating rate 10 K/min, nitrogen atmosphere), measured with the DSC 204 **F1** Phoenix®

Evaporation of volatile substances usually starts before the boiling point of the volatile is reached.

This measurement shows that the evaporation of water can be suppressed by using a cold weldable aluminum lid with a defined hole (\varnothing 50 μm , green curve). The comparison

measurement uses a lid with a punched hole. Here, evaporation already begins at slightly above 60°C (blue curve).

Cold weldable lids with laser-cut holes can also be used for gypsum applications. The separation of dihydrate (DH) and half hydrate (HH) can be achieved.