

APPLICATION SHEET

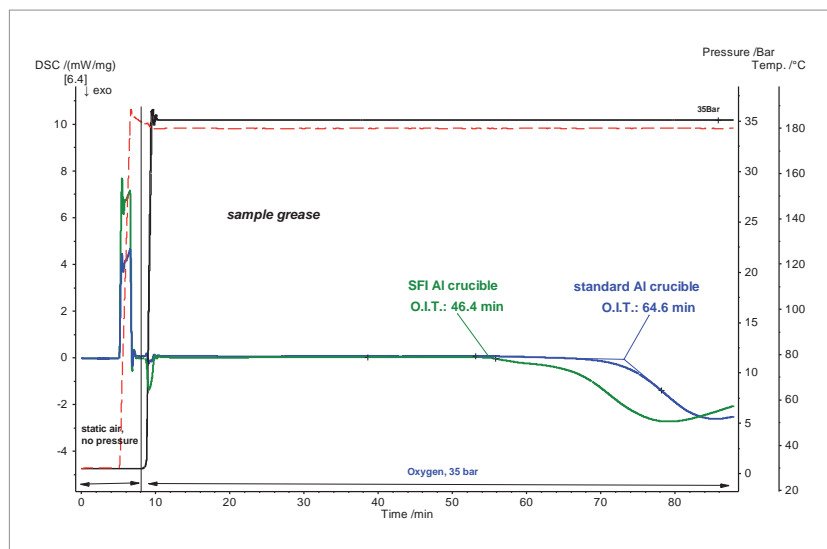
DSC Accessories – Crucibles for OIT and “SFI” of Lubricants

Oxidative-Induction Time (OIT) and Solid Fat Index (SFI) Tests on Lubricating Greases

For OIT and SFI tests, grease and wax samples can be prepared with more consistent surface areas when using “SFI” crucibles instead of flat-bottom crucibles. The results show an increased reproducibility.



SFI crucibles for an OIT test of lubricants and greases on special stamping tool, see also *Accessories for Differential Scanning Calorimeters and Thermo-balances*



Oxidation stability determined in two different Al crucibles, measured with the DSC 204 HP *Phoenix*® under isothermal conditions at 180°C at 35 bar

In this example, an OIT measurement on grease was carried out with the DSC 204 HP *Phoenix*® with a standard Al crucible and the “SFI” crucible under an oxygen pressure of 35 bar as per ASTM D5483-5. The difference in the OIT is clearly visible. The oxidative-induction time

of the grease in the “SFI” crucible is approximately 21 min shorter than the one in the standard Al crucible. This effect results from the more consistent sample surface area made possible by use of the “SFI” crucible.