Dilatometer L 75 High Pressure



/NSE/S

General

The LINSEIS high-pressure dilatometer L75/HP enables completely new applications in thermal analysis. The system can measure expansions (length changes) in the temperature range from RT up to 1100/1400/1800°C (customized systems on request) and in the pressure range up to 500 bar. This device is the world's only available highpressure dilatometer. A steam generator and camplex gas control system are optional available.



An get even more informations and extend your measeurement, an analysis of the effluent gases can be done by using a QMS or FTIR system at any time. But the coupling is more than only the sum of the separate parts. You can benefit from LINSEIS coupling knowledge and integrated hard- and software concept. For the interpretation of the results, different libraries are available.



Software

All LINSEIS thermo analytical instruments are PC controlled. The individual software modules exclusively run under Microsoft[®] Windows[®] operating systems. The complete software consists of 3 modules: temperature control, data acquisition and data evaluation. The 32 bit software incorporates all essential features for measurement preparation, execution, and evaluation of a Dilatometer measurement. Thanks to our specialists and application experts, LINSEIS was able to develop comprehensive easy to understand user friendly application software.

Gerneral features:

- · Program capable of text editing
- Data security in case of power failure
- Thermocouple break protection
- Repetition measurements with minimum parameter input
- Evaluation of current measurement
- Curve comparison up to 32 curves
- Storage and export of evaluations
- Export and import of data ASCII
- Data export to MS Excel
- Multi-methods analysis (DSC TG, TMA, DIL, etc.)

- Zoom function
- 1 and 2 derivation
- Programmable gas control
- Statistical evaluation package
- Free scaling

DIL-features

- · Glass transition and softening point evaluation
- Softening point detection with automatic software controlled system shut down
- · Display of relative/absolute shrinkage or expansion curves
- Presentation and calculation of technical / physical expansion coefficient
- Rate Controlled Sintering (RCS) Software
- Sinter process evaluation
- Semiautomatic evaluation functions
- Several system correction features
- Automatic zero point adjustment
- · Automatic software controlled sample pressure adjustment



Technical Specifications

	DIL L75 HP / 1	DIL L75 HP/2	
Temperature range*	RT up to 1100°C	RT up to 1400/1800°C	
Max. pressure	150 bar	100 bar	
Vacuum	10 ⁻⁴ mbar	10 ⁻⁴ mbar	
Sample holder	fused silicia < 1100°C Al ₂ 0 ₃ < 1750°C	fused silicia < 1100°C $AI_2O_3 < 1750°C$	
Max. sample length	50 mm	50 mm	
Sample diameter	7/12/20 mm	7/12/20 mm	
Adjustable sample pressure	up to 1000 mN	up to 1000 mN	
Measuring range	500 / 5000 μm	500 / 5000 μm	
Resolution	0.125 nm	0.125 nm	
Options	Pressure controllable Gas Mixing System (MFC's)	Pressure controllable Gas Mixing System (MFC's)	
Atmosphere	inert, oxid.**, red., vac.	inert, oxid.**, red., vac.	

* different furnace ** not possible with graphite heater





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Products: DIL, TG, STA, DSC, HDSC, DTA, TMA, MS/FTIR, In-Situ EGA, Laser Flash, Seebeck Effect, Thin Film Analyzer, Hall-Effect Services: Service Lab, Calibration Service



