



TA Instruments DVD-1650 High-Temperature Dilatometer: Salient Features

- † Superior to competition
- ⌘ Unique to our equipment

Furnace:

- Compact design
- ⌘ Forced-air cooled shell
- ⌘ Kanthal Super 33 elements (rated to 1800°C)
- Alumina muffle
- Water cooled muffle flange
- Vacuum port
- Purge gas capability
- † Energy saving design

Power Supply:

- Efficient, cool operation
- Solid state power controller
- ⌘ Water cooled thyristors
- Phase angle and current limiters
- † Fully integrated into instrument

Safety:

- † Chamber pressure relief valve
- ⌘† Water flow interlock sensor
- Open thermocouple protection
- ⌘ Dead computer protection
- † Software selectable safety limits
- † Logical (in-software) safety features

Dilatometer:

- Water cooled instrument platform
- † Counterbalanced stage
- Selected grade alumina (HP) parts
- Easy removal and exchange of tube
- Alternate quartz system
- †⌘ Universal, dual sample operation (optional)
- †⌘ Counterbalanced push-rod

- ✕ TMA operation (optional)
- †✕ Digital, absolute displacement transducer
- †✕ Long stroke (for sintering work) without loss of sensitivity
- Differential operation (optional)

Temperature Programming:

- † Control to true sample temperature (not furnace)
- ✕ Built in tutorial/simulation program
- † On screen programming with entry checks
- ✕ Context linked help screens
- † Sample designation header
 - 16 section 64 segment program
 - variable heating rates within a broad range
 - variable dwell temperatures
 - variable soak times
 - variable printing rates
- ✕ Up to 98 stored programs
- ✕ Up to 9 repeat cycles
- † Digital adaptive temperatures control
- ✕ Automatic calibration cycles
- Alternate large font display (optional)

Special Programs (Optional):

- ✕ Controlled rate sintering cycles
- ✕ Softening point determination
- †✕ Optimized cycle

Data Analysis:

- †✕ Fully automatic
- ✕ Statistical evaluation and curve fitting
- ✕ Computation of results in uniform intervals
 - Percent expansion vs. temperature table
 - Average coefficient vs. temperature table
 - Instantaneous coefficient vs. temperature table
 - Percent expansion vs. temperature plot
 - Average coefficient vs. temperature plot
 - Instantaneous coefficient vs. temperature plot
- † Special sintering analysis
- ✕ Advanced data analysis program (optional)

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