WENGER PHASE TRANSITION ANALYZER™

KEY FEATURES:

- Temperature range: 5 - 200°C
- Heating and cooling rates up to 25°C/min
- Pressure measurement and control up to 210 bar
- Software package to measure and record temperature, pressure and sample movement
- Realtime graphical display of data during testing
- Data analysis software to determine T_g and T_m
- CE compliance
- Weight: 45 kg.

WHAT IT DOES:

The **Wenger Phase Transition Analyzer**™ was developed in the Wenger Technical Center to measure the "controlling" glass (T_g) and melt (T_m) transitions of a complex mixture of biopolymers that often comprise an extruded food or feed product.

The "controlling" T_g and T_m is the temperature at which sufficient amount of sample is softened to allow for particle compaction (T_g) or melted to allow for flow (T_m) through an orifice.

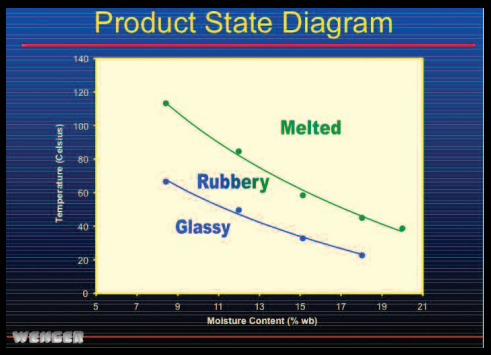
Note: *A chilled coolant supply is required to achieve temperatures below room temperature. Wenger reserves the right to change specifications without notice.*

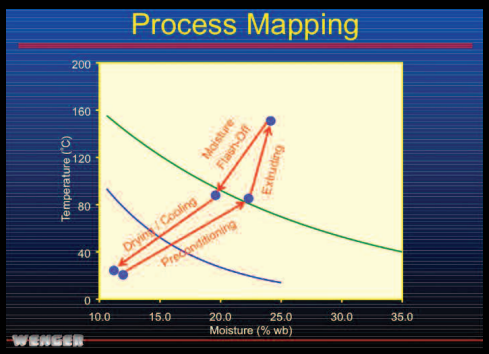
Enables ***precise mapping*** *of extrusion process.*

WHAT IT IS:

The Wenger Phase Transition Analyzer™ is a closed-chamber capillary rheometer, which uses a combination of pressure, temperature, time and moisture to measure the T_g and T_m of a biopolymer.

It consists of two sealed chambers, separated by an interchangeable capillary die, that prevents sample moisture loss so testing can be at temperatures far exceeding 100°C. The sample chamber is of fixed volume, and a constant pressure is maintained on the sample throughout the test. The sample movement, which is tracked and recorded during testing, is used to determine the sample's controlling T_g and T_m.





BENEFITS/ADVANTAGES:

The Wenger Phase Transition Analyzer™ provides knowledge about the T_g and T_m of a biopolymer that can be directly applied to the extrusion cooking process.

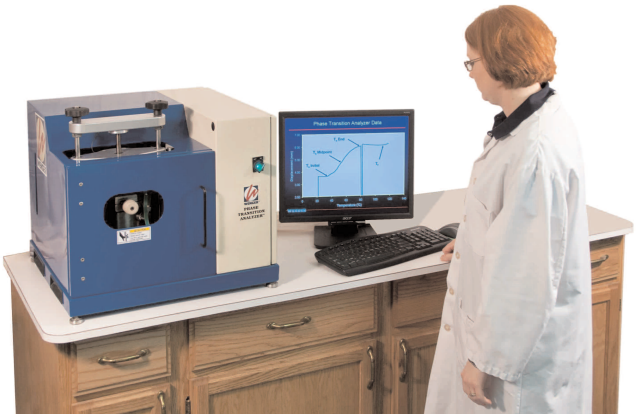
When a sample's T_g and T_m is combined with a mass and energy audit of an extrusion system, it enables an extrusion technologist to accurately map the process – a valuable aid to troubleshooting and better characterization of the extrusion operation. **The Phase Transition Analyzer™** data also has been correlated to important properties of both raw materials and extruded products.

COMPUTER REQUIREMENTS:

- Windows XP, 133 MHz processor (or better).
- 128 MB RAM, 300 MB available hard drive space.
- Color monitor or flat panel HMI with minimum screen resolution of 600 x 800.
- I/O Network card.
- Spreadsheet applications such as Excel or Lotus

UTILITY REQUIREMENTS:

- Compressed air 6 – 8 bar (90 – 115 psi).
- Dedicated circuit: 240 Volt, single phase, 50/60 hz, 10 Amp or 120 V, 60 hz, 20 Amp circuit.
- Cooling medium capable of 8 liter/min. (2 gal/min) with operating temperature range of 0 - 40°C (32 –104°F).



WENGER®

Inventing the new original since 1935.

WENGER PLANT AND CORPORATE OFFICES
714 MAIN STREET, SABETHA, KANSAS 66534-0130 USA
TEL 785 284 2133 **FAX** 785 284 3771 **EMAIL** INFO@WENGER.COM

BELGIUM +32 3 232 7005 **TAIWAN** +886 4 2322 3302 **BRASIL** +55 19 3871 5006 **CHINA** +86 10 6641 5979 **TURKEY** +44 1502 675 780

WWW.WENGER.COM