(800) 528-7411 or (602) 470-1414
brookfieldengineering.com

Thermosel®

For elevated temperature testing

What's Included

- Alignment Bracket
- Thermo Container with safety guard and insulating cap
  - Specify part HT-110 when ordering
- 5 Disposable Sample Chambers
  - Order additional chambers in quantities of 100 (HT-2DB-100)
- 1 Removable Sample Chamber
- Extracting Tools

*Choice of SC4 Spindle and Temperature Controller with an RTD Probe purchased separately

Applications	
Hot Melts	Asphalt (ASTM D4402)
Wax	Polymers

Features

Compatible with standard AMETEK Brookfield Viscometers and DVNext Rheometers
Note: Requires optional cable (HT-106)

Provides control of sample temperature up to +300°C

Programmable Temperature Controller offers single set point or up to 10 programmable set points

Magnetic Coupling Option
The Thermosel is also available to purchase with a magnetic spindle coupling system. This option allows spindles to be quickly attached and removed, and may also help prevent against damage that can occur from frequent spindle changes or multiple users

Thermo Container (Heating Chamber)

Temperature control possible with RheocalcT Software

Computer Controlled when used with RheocalcT Software

Temperature Ramping between set points is possible if used with RheocalcT Software

Thermosel Viscosity Ranges cP(mPa•s)

SPINDLE SAMPLE VOLUME SHEAR RATE (sec-1)† MODEL	SC4-18 8mL 1.32N	SC4-31 10mL .34N	SC4-34 9.5mL .28N	SC4-21 8mL .93N	SC4-27* 10.5mL .34N	SC4-28 11.5mL .28N	SC4-29 13mL .25N	HT-DIN-81** 7mL 1.29N
DV3TLV/DVNextLV	1.2-30K	.12-300K	24-600K	It is possible to use the above spindles with any of these instruments. However, it is not recommended. Digital Viscometers/Rheometers will automatically calculate viscosity. Please contact AMETEK Brookfield or an authorized dealer if you require information on viscosity range.				1.0-10K
DV2TLV	1.5-30K	15-300K	30-600K					3.4-10K
DV1LV	3-10K	30-100K	60-200K					3.4-10K
DVELV	3-10K	30-100K	60-200K					3.4-10K
LVT	5-10K	50-100K	100-200K					5.7-10K
DV3TRV/DVNextRV	It is possible to use the above spindles with any of these instruments. However, it is not recommended. Digital Viscometers/ Rheometers will automatically calculate viscosity. Please contact AMETEK Brookfield or an authorized dealer if you require information on viscosity range			20-500K	100-2.5M	200-5M	400-10M	14.6-10K
DV2TRV				25-500K	125-2.5M	250-5M	500-10M	36.5-10K
DV1RV				50-170K	250-830K	500-1.7M	1K-3.3M	36.5-10K
DVERV				50-170K	250-830K	500-1.7M	1K-3.3M	36.5-10K
RVT				50-100K	250-500K	500-1M	1K-2M	36.5-10K
DV3THA/DVNextHA				40-1M	200-5M	400-10M	800-20M	29.2-10K
DV2THA				50-1M	250-5M	500-10M	1K-20M	73.0-10K
DV1HA				100-300K	500-1.7M	1K-3.3M	2K-6.7M	73.0-10K
DVEHA				100-300K	500-1.7M	1K-3.3M	2K-6.7M	73.0-10K
HAT				100-200K	500-1M	1K-2M	2K-4M	73.0-10K
DV3THB/DVNextHB				160-4M	800-20M	1.6K-40M	3.2K-80M	116.8-10K
DV2THB				200-4M	1K-20M	2K-40M	4K-80M	292.0-10K
DV1HB				400-1.3M	2K-6.7M	4K-13.3M	8K-26.7M	292.0-10K
DVEHB				400-1.3M	2K-6.7M	4K-13.3M	8K-26.7M	292.0-10K
HBT				400-800K	2K-4M	4K-8M	8K-16M	292.0-10K

M = 1 million K = 1 thousand N = RPM e.g. Spindle SC4-18 1.32 x 10 (rpm) = 13.2 sec-1 cP = Centipoise mPa•s = Millipascal•seconds.
N/A = Not applicable for historical reasons. However, it is possible to use any spindle/chamber combination with any torque range. Digital viscometers/rheometers will automatically calculate viscosity.

About the Thermosel® System

(800) 528-7411 or (602) 470-1414

The difficulty with viscosity measurements of hot melts and liquids at elevated temperatures has been in maintaining accurate temperature control that is consistent from sample to sample so that meaningful data could be obtained. The AMETEK Brookfield Thermosel solves this problem by providing a stable, precisely controlled sample environment. This, together with the inherent accuracy of the AMETEK Brookfield Viscometers, is fundamental to the Thermosel System, which produces viscosity measurements that are not only accurate but entirely reproducible.

Several factors contribute to the stable environment:

- Non-fluctuating temperature control
- Small sample volume and insulated sample chamber which reduces temperature gradients within the sample
- The rotating spindle, which acts as a built-in stirring device
- The test procedure is quite straightforward. Once familiar with the system, unskilled operators can easily produce accurate, reproducible data.

Additional Information

Alignment Bracket ensures concentricity of spindle and sample chamber.

Extracting Tool enables the sample chamber to be handled easily and safely.

Other components include:

- Sample chamber holder
- RTD probe
- Insulating cap
- Coupling link & nut
- Choice of SC4 spindle

Option: Disposable Sample Chamber with Optional Disposable Spindle SC4-27D* is ideal for asphalts or any difficult-to-clean material.

Order disposable SC4-27D spindle in quantities of 100, Part No.SC4-27D-100. Requires special chuck/closer, Part No. SC4-DSY, for attachment to viscometer. Order disposable HT-2DB chambers in quantities of 100, Part No. HT-2DB-100.

Option: Solid shaft spindles for high viscosity materials