



# DROPPING POINT AND SOFTENING POINT TESTER - TORONDSPT™ 200

## **Dropping Point and Softening Point Tester - ToronDSPT™ 200**

A Dropping Point and Softening Point Tester helps QC and R&D teams measure phase-change temperatures for semi-solids and solids such as grease, wax, resin, and asphalt. ToronDSPT™ 200 combines high-precision temperature control with HD video observation to capture clear transition behavior and support consistent endpoint decisions.

Fully automatic, one-click testing reduces operator workload while keeping documentation organized for reporting and audits. Dual-channel capacity supports two samples per run to improve daily throughput. ToronDSPT™ 200 is built around a closed, PID-controlled furnace and a high-definition camera that records the full state-change process.

Real-time curve display and automatic endpoint detection support repeatable results when different operators run the same method. Standardized fat cups and test procedures help align results across routine QC checks. Method management, user permissions, and data integrity controls support labs that need traceable electronic records. Printing and export options help move results into batch files quickly.

### **APPLICATIONS**

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### **Applications**

- Grease and lubricant quality control: Dropping point testing supports grease type identification and lot-to-lot consistency checks. Results are commonly used to monitor thickener system behavior and compare formulations during development.
- Asphalt and high-temperature asphalt evaluation: Softening point testing supports classification and comparison of bitumen flow tendency at elevated temperatures. This is useful for incoming inspection and product development in

paving and roofing applications.

- Wax, para control: Softening point data supports composition control for paraffin, resins, and rosin used in adhesives, coatings, inks, and processing aids. Cup-and-ball style methods are widely referenced for resin/rosin work.
- Petroleum jelly, ointments, and cosmetic bases: behaviors help screen consistency for semi-solid bases such as petrolatum and ointments. Video records support review when melt behavior needs verification for internal documentation.



## Standards

### Dropping point of Lubricating Grease

- 21 CFR Part 11 expectations may apply when electronic records/e-signatures are used in regulated environments.

## FEATURES

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### Dropping Point and Softening Point Tester - ToronDSPT™ 200 Key Features

- Fully automatic, one-touch testing workflow for faster routine QC.
- AI-assisted parameter setup to reduce manual setup steps and improve repeatability.
- Runs two samples per batch (dual-channel) to increase daily throughput.
- HD video observation with live graph display so the full state-change process is easy to review.
- Closed furnace + PID temperature control for stable heating performance across ramps.
- Up to 10 programmable temperature segments for consistent method execution.
- 21 CFR Part 11-ready functions including audit trail and electronic signature support.
- Flexible connectivity + data handling (PDF/Excel export, multiple interfaces, QR scan input option).









## **THEORY & METHOD**

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### **Theory and Method**

A prepared sample is loaded into the appropriate cup depending on the test being run. The furnace heats using a controlled ramp while the HD camera records the full transition. Software displays the curve in real time and supports automatic endpoint detection for the dropping point or softening point criteria used by the selected method. Multi-segment

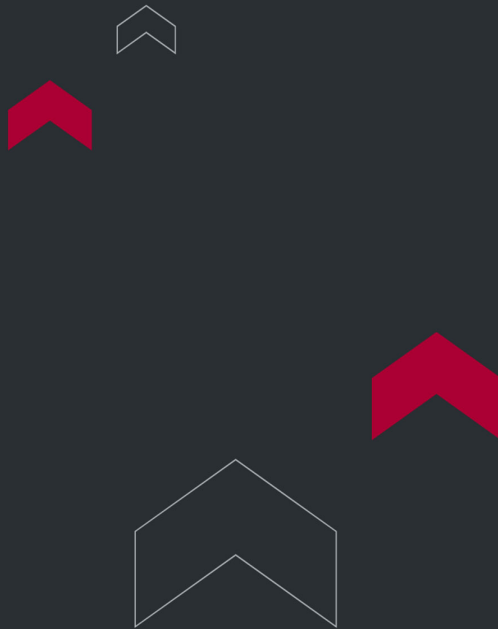
programming supports repeatable ramp profiles for routine QC comparison. Stored methods and records support consistent testing across operators and shifts.

TECHNICAL SPECIFICATIONS

Dropping Point and Softening Point Tester - ToronDSPT™ 200 Technical Specification

| Specification          | ToronDSPT™ 200                                      |
|------------------------|-----------------------------------------------------|
| Temperature range      | Room temperature to 400 °C                          |
| Detection mode         | Fully automatic (manual-compatible)                 |
| Sample capacity        | 2 channels per batch (two samples at the same time) |
| Dropping point cup     | 2 drip cups, 2.8 mm orifice                         |
| Softening point cup    | 2 cups, 6.35 mm orifice                             |
| Temperature resolution | 0.01 °C                                             |
| Heating rate           | 0.1 °C to 20 °C (200-step adjustable)               |
| Temperature control    | PID control, fully closed furnace design            |
| Program segments       | Up to 10 temperature segments                       |
| Graph / map view       | Zoomable display for detailed review                |
| Accuracy               | ±0.2 °C (<250 °C); ±0.4 °C (>250 °C)                |
| Repeatability          | ±0.1 °C (at 0.1 °C/min)                             |

| Specification          | ToronDSPT™ 200                      |
|------------------------|-------------------------------------|
| Magnification          | Standard 9× (adjustable)            |
| Display                | 10.4" FTF color touch screen        |
| Data storage           | 128 GB                              |
| Atlas / record storage | 400 groups                          |
| Method storage         | 800 methods                         |
| Method lock            | Yes                                 |
| User management        | Four-level permission management    |
| Audit trail            | Yes                                 |
| Electronic signature   | Yes                                 |
| Custom method library  | Yes                                 |
| Export verification    | MD5 protection supported            |
| File export formats    | PDF and Excel                       |
| Data interfaces        | USB, RS232, SD, Wi-Fi, RJ45, U-disk |
| QR scanning input      | Supported (scanner / scanning gun)  |
| Packing size           | 430 × 320 × 370 mm                  |
| Voltage                | 110-230 V, 50/60 Hz, 120 W          |
| Gross weight           | 6.50 kg                             |



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