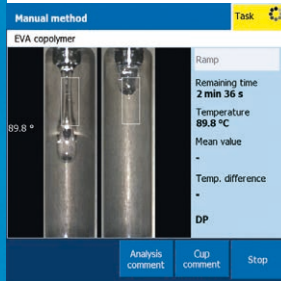


One Click™ Dropping Point DP90 – Sub-Zero Possibilities



Automatic Detection

The DP90 allows for two simultaneous, automatic, unattended dropping and softening point determinations from $-20\text{ }^{\circ}\text{C}$ to $400\text{ }^{\circ}\text{C}$. The comprehensive temperature range provides allows for flexible, quick, and reliable measurements.



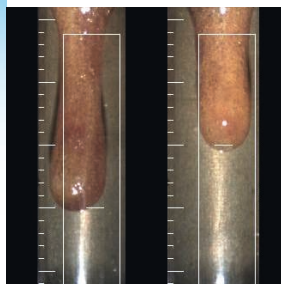
One Click™ User Interface

The large color display and touch screen with intuitive One Click™ user interface minimizes training and provides reliable results. Quick familiarization is guaranteed with the common interface on all METTLER TOLEDO analytical laboratory instruments.



Maximum Efficiency

Included in the standard delivery, the sample preparation kit ensures accurate and quick sample preparation. Disposable cups and glassware, as well as the use of a furnace instead of an oil or water bath, eliminate the need for tedious cleanup. With rapid heating and cooling times, more analyses can be performed.



Color Video Recording

Visual data is stored for all measurements. The high resolution color videos can be conveniently replayed on the instrument at any time, allowing measurement integrity to be verified.



DP90 Dropping Point System

With DP90, dropping point and softening point determinations at sub-ambient temperatures are now possible. Optimized for testing a variety of samples, the DP90 allows for duplicate determination and accurate result documentation. The many other advantages available with this Excellence Dropping Point System include:

- High accuracy and repeatability
- Simple and secure operation
- Enhanced export possibilities
- Convenient sample preparation accessories
- Compliance to industry norms and standards

DP90 Functionality Overview

| | |
|-----------------------------------|--|
| Instrument format | Control unit with external measuring cell |
| Applications | Fully automatic dropping point (DP) and softening point (SP), with length diagrams for SP |
| One Click™ | 12 shortcuts per user |
| Documentation | USB-P25 compact printer, network printer USB memory stick and network connection for import/export and PDF storage |
| User identification | 30 different users, customized user rights/roles |
| Methods and results | Pre-programmed method templates for automatic DP and SP detection. 60 methods, up to 100 substances Statistics: mean value, difference, outlier result exclusion possible Maximum number of results: 100 Video export, storage, and replay possible on instrument and PC (with diagrams) PDF report generation. Results can be automatically printed or exported to PC or LIMS. 120 minutes of video run time |
| Calibration and adjustment | Fully automatic optics adjustment (position and brightness) One-, two and three-point temperature adjustment, automatic calibration and calculation of adjustment parameters |
| Languages | User interface in English, German, French, Spanish, Portuguese, Chinese, Russian, Japanese. Printout in English, German, French |
| Standard compliance | www.mt.com/mpdp-norms |
| Service | Professional installation, audit-proof qualification and certification solutions Ensure reliability of Dropping Point Excellence equipment with preventive maintenance plan |

DP90 Technical Specifications

| | | | | | |
|-------------------------|---|--|----------------------------|-------------|-------------|
| Temperatures | Measurement range | -20 °C – 400 °C | | | |
| | Heating rate | 0.1 – 20 °C/min | | | |
| | Accuracy* (-20 °C – 30 °C) | ± 0.4 °C | | | |
| | Accuracy* (30 – 200 °C) | ± 0.2 °C | | | |
| | Accuracy* (200 °C – max temperature) | ± 0.5 °C | | | |
| Environment | Ambient temperature | 10 – 35 °C | | | |
| | Atmospheric humidity | Max 80% (non condensing) at 31 °C, linearly descending to 50% at 40 °C | | | |
| Dimensions | Width x length x height | Measuring cell 13 x 25 x 21 cm Control unit 19 x 35 x 23 cm | | | |
| | Weight | 7 kg | | | |
| | Softening Point cups | Up to 2, 6.35 mm | | | |
| | Dropping Point orifices | Up to 2, 2.8 mm | | | |
| Terminal | 5.7" VGA color touch screen | | | | |
| | Video: color AVI, 2.5x magnification | | | | |
| Communication | USB host (printer, memory stick, barcode reader, hub, keyboard, mouse): 3 | | | | |
| | Ethernet (Network and PC Software) | | | | |
| Application area | Material | Operation Mode | Standard | DP70 | DP90 |
| | Pitch | SP | ASTM D3104, ASTM D3461 | ● | ● |
| | Asphalt | SP | ASTM D3461 | ● | ● |
| | Polyolefins | DP | ASTM D3954 | ● | ● |
| | Resins | SP | ASTM D6090 | ● | ● |
| | Waxes | DP | ASTM D3954, Ph. EUR 2.2.17 | ● | ● |
| | Paraffins | DP | Ph. EUR 2.2.17 | ● | ● |
| | Binders | SP | DIN 51920, ISO 4625-2 | ● | ● |
| | Lubricating greases | DP | IP 396 | ● | ● |
| | Organic powders | DP | | ● | ● |
| | Vaseline | DP | Ph. EUR 2.2.17 | ○ | ● |
| | Edible fats | DP | AOCS Cc 18-80 | ○ | ● |
| Edible oils | DP | AOCS Cc 18-80 | ○ | ● | |

* Subject to sample, environment and handling, ● suitable, ○ partly suitable

DP: Dropping point
SP: Softening point

METTLER TOLEDO Group
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www.mt.com/MPDP

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Subject to technical changes
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