

### Flash-Point with Closed Cup - Pensky-Martens Method

- PMA 5 (automatic)

ASTM D 93-A+B - JIS K2265-3 - AASHTO T73 - AASHTO T172 -IP 34-A+B - ISO 2719-A+B

ASTM D 93-C

ISO 15 267

Temperature Range: ambient to +405 °C (+761 °F)

- 1-twist handling
- fire extinguisher
- automatic barometric pressure correction
- milli-cup accessories available

Datasheet: 12-5770.pdf

Ref.-No:

12-5770 / 107125 (115/230V, EU) 12-5771 / 107126 (115/230V, US)



### Flash- & Fire-Point with Open Cup - Cleveland Method

- CLA 5 (automatic)

ASTM D 92 - FTM 791-1103 - IP 36 - ISO 2592 - JIS K2265-4 -AASHTO T48

Superpave®

Temperature Range: +79 to +400 °C (+175 to +752 °F)

- automatic barometric pressure correction
- skimmer & draft deflector available
- bitumen test option

Datasheet: 12-5700.pdf

Ref.-No:

12-5700 / 107122 (115/230V, EU) 12-5701 / 107123 (115/230V, US)



### Flash-Point with Closed Cup - Abel Method

- ABA 4 (automatic)

IP 170 - ISO 13 736

DIN 51 755-1

ISO 1516 - ISO 1523 - EN 924 - IP 491 - IP 492

Temperature Range (internal cooling) : +10 to +110 °C (+50 to +230 °F) : -30 to +110 °C (-22 to +230 °F) Temperature Range (external cooling)

- 1-twist handling
- automatic barometric pressure correction
- milli-cup accessories available

Datasheet: 12-0501.pdf

Ref.-No:

12-0501 / 107097

(115/230V, EU, internal cooling)

12-0502 / 108319

(115/230V, US, internal cooling)

Ref.-No:

12-0503 / 107098

(115/230V, EU, external cooling)

12-0504 / 108320

(115/230V, US, external cooling)



### Flash-Point with Closed Cup - TAG Method

- TAG 4 (automatic)

ASTM D 56 - FTM 791-1101 - JIS K2265-1

ASTM D 3934 - ASTM D 3941 - EN 924

ASTM D 3934 - ASTM D 3941 - EN 924 - IP 491 - IP 492 -

ISO 1516 - ISO 1523

Temperature Range (internal cooling) : 0 to +110 °C (+32 to +230 °F) Temperature Range (external cooling) : -30 to +110 °C (-22 to +230 °F)

- 1-twist handling
- automatic barometric pressure correction
- milli-cup accessories available

Datasheet:

12-0540.pdf Ref.-No: 12-0540 / 107099

(115/230V, EU, internal cooling)

12-0541 / 107100

(115/230V, US, internal cooling)

Ref.-No:

12-0542 / 107101

(115/230V, EU, external cooling)

12-0543 / 108321

(115/230V, US, external cooling)



## Flash-Point with Closed Cup - Pensky-Martens Method

- PMA 4 Sample Changer (automatic)

ASTM D 93-A+B - JIS K2265-3 - AASHTO T73 - AASHTO T172 -IP 34-A+B - ISO 2719-A+B

ASTM D 93-C

ISO 15 267

Temperature Range: +40 to +360 °C (+104 to +680 °F)

- fire extinguishing device
- up to 12 test-places
- milli-cup option

Datasheet: 12-2772.pdf

Ref.-No:

12-2772 / 107121 (115/230V, EU) 12-2773 / 108322 (115/230V, US)



### **Auto-Ignition Temperature**

- ZPA 3 (automatic)

EN 14 522 - DIN 51 794 - CEI 79-4 - 79/831/EWG

Temperature Range: ambient to +650 °C (+1202 °F)

- autosampler with heated sample-feeder
- automatic test cycle
- special solid heating program

Datasheet: 12-1822.pdf

Ref.-No:

12-1822 / 107115 (230V)

12-1823 / 110237

(115V)



## Flash-Point with Closed Cup - Pensky-Martens Method

- PM 4 (semi-automatic)

ASTM D 93-A+B - JIS K2265-3 - FTM 791-1102 - FTM 141-4293 - AASHTO T73 - AASHTO T172 - IP 34-A+B - ISO 2719-A+B ISO 15 267

Temperature Range: +40 to +350 °C (+104 to +662 °F)

- 1-twist handling
- gas & electric igniter
- manually adjusted heating rate

Datasheet: 12-1650.pdf

Ref.-No:

12-1650 / 107149

(230V)

12-1651 / 107150

(115V)



### Flash- & Fire-Point with Open Cup - Cleveland Method

- CL 5 (semi-automatic)

ASTM D 92 - JIS K2265-4 - AASHTO T48 -FTM 791-1103 - IP 36 - ISO 2592

Superpave®

Temperature Range: +79 to +400 °C (+175 to +752 °F)

- re-cooling device
- electric heating with overheat protection
- gas ignition device

Datasheet: 12-2730.pdf

Ref.-No:

12-2730 / 107152

(230V)

12-2731 / 107153

(115V)



## Flash-Point with Closed Cup - Abel Method

- AB 5 (semi-automatic)

IP 170 - ISO 13 736

Temperature Range: up to +70 °C (up to +158 °F)

- 1-twist handling
- connection of external cooling device possible

Datasheet: 12-2270.pdf

Ref.-No:

12-2270 / 107151



## Distillation of Petroleum Products & Volatile Organic Liquids

- Atmospheric Pressure Method



#### **Automatic Distillation Unit**

ASTM D 86 - IP 123 - ISO 3405 - JIS K2254 ASTM D 850 - ASTM D 1078 - IP 195 (Solvents)

- ADU 4+

- manual dry-point detection is possible

- ADU 4+ DryPoint

- optional automatic dry-point detection

Temperature Range: 0 to +450 °C (+32 to +842 °F)

- integrated: - fire extinguisher

- bath tempering (internal heating & cooling)

- computer (with variable mountable monitor, keypad & mouse)

- automatic switch-over from group 1 to 4 during distillation

- ready-to go with glassware for distillation group 1-4

- suitable for distillation group 0-4

- available accessories for distillation group 0 and solvents

Datasheet: 11-5580.pdf

Ref.-No:

11-5580 / 106515

(230V)

Ref.-No: Dry-Point 11-5582 / 106516

(230V)



### Manual Distillation Unit

ASTM D 86 - IP 123 - ISO 3405 - JIS K2254 ASTM D 850 - ASTM D 1078 - IP 195

- DU 4-EcoPlus

- bath tempering: external heating & cooling

- DU 4-EcoThermoPlus

- bath tempering: internal heating but external cooling

Temperature Range: 0 to +440 °C (+32 to +824 °F)

- 1200W heater (safety-heater-rods reduce burn-risk)

- suitable for distillation groups 0-4

Datasheet: 11-0904.pdf

Ref.-No: EcoPlus 11-0904 / 106509

(230V)

11-0905 / 108315

(115V)

Ref.-No: EcoThermoPlus

11-0906 / 106510

(230V)

11-0907 / 106511

(115V)

- DU 4-Pro

- bath tempering: external heating & cooling

- DU 4-ProThermo

- bath tempering: internal heating but external cooling

Temperature Range: 0 to +440 °C (+32 to +824 °F)

- 1200 W heater (safety-heater-rods reduce burn-risk)

- built-in fire extinguisher, re-cooling fan, bath-liquid level indicator

- suitable for distillation groups 0-4

Datasheet: 11-0910.pdf

Ref.-No: Pro 11-0910 / 106512

(230V) 11-0911 / 106513

(115V)

Ref.-No: ProThermo 11-0912 / 106514

(230V)

11-0913 / 108316



#### **Gum Content of Fuels**

ASTM D 381 - DIN 51 784 - FTM 791-3302 - ISO 6246 - IP 131 - IP 540 - JIS K2261

### - Air & Steam-Jet Evaporation - GUM (semi-automatic)

- for tests with air or steam supply
- achievable heater temperature up to +280°C
- complete calibration set is available

### - Air-Jet Evaporation - GUM (semi-automatic)

- for tests with air supply
- achievable heater temperature up to +240°C
- complete calibration set is available

Datasheet: 13-0035.pdf

Ref.-No:

13-0035 / 106537

(230V)

13-0036 / 106538

(115V)

Datasheet: 13-2030.pdf

Ref.-No:

13-2030 / 106556

(230V)

13-2031 / 106557

(115V)

Datasheet: 13-3002.pdf

Ref.-No: Block-Cooling 13-3002 / 107131 (115/230V, EU) 13-3003 / 107132 (115/230V, US)

Datasheet: 13-3006.pdf

Ref.-No: Active Cool 13-3006 / 107133 (115/230V, EU) 13-3007 / 107134 (115/230V, US)



### Oxidation Stability of Gasoline, Diesel & FAME

### - RSSOT (Rapid Small Scale Oxidation Test)

ASTM D 7525 (Gasoline)

ASTM D 7545 (Diesel, Biodiesel & Blends) EN 16 091 (Diesel, Biodiesel (FAME) & Blends)

Correlates with:

Gasoline Method: ASTM D 525 - IP 40 - ISO 7536

Diesel Method: EN 15 751 FAME Method: EN 14 112

### - PetroOXY Block-Cooling (automatic)

manual re-cooling between tests by externally chilled cooling block

### - PetroOXY Active Cool (automatic)

automatic re-cooling between tests by Peltier elements and tempering of the sample chamber below ambient



### **Oxidation Stability**

### of Gasoline & Aviation Fuels - Induction Period

ASTM D 525 - FTM 791-3352 - IP 40 - ISO 7536 - JIS K2287 Induction Period of Gasoline

ASTM D 873 - FTM 791-3354 - IP 138 - JIS K2276 Potential Residue of Aviation Fuel

#### - OBA 1 - Test Arrangement (semi-automatic)

- 4-place liquid bath
- digital manometer PA 5

## - OBA 1/T - Test Arrangement (semi-automatic)

- 4-place dry-heat bath
- digital manometer PA 5

Datasheet: 13-1660.pdf

Ref.-No: OBA 1 13-1660 / 107052

(230V)

13-1661 / 107053

(115V)

Ref.-No: OBA 1/T 13-1662 / 107054

(230V)

13-1663 / 107055

(115V)



## - OBA 2 - Safety Test Arrangement (semi-automatic)

- 4-place liquid bath
- safety approved oxidation vessels
- digital manometer PA 5

### - OBA 2/T - Safety Test Arrangement (semi-automatic)

- 4-place dry-heat bath
- safety approved oxidation vessels
- digital manometer PA 5

Datasheet: 13-1664.pdf

Ref.-No: OBA 2 13-1664 / 108333 (230V)

13-1665 / 108334

(115V)

Ref.-No: OBA 2/T 13-1666 / 107056

(230V)

13-1667 / 108335



# Corrosiveness to Copper by Petroleum Products

- Copper Strip Tarnish Test (manual)

ASTM D 130 - FTM 791-5325 - IP 154 - ISO 2160 - JIS K2220 - JIS K2513

Option: Silver Strip Test ASTM D 4814

Datasheet: 13-0700.pdf

Ref.-No:

13-0700 / 107156

(230V)

13-0699 / 106544

(115V)



## Salts in Crude Oil - Conductivity Method

- Salinometer - SCO 1 (manual)

ASTM D 3230 - IP 265 - JIS K2601

Datasheet: 13-0497.pdf

Ref.-No:

13-0497 / 107129

(230V)

13-0496 / 107128





## Vapor Pressure of Petroleum Products

- REID Method - RVP (digital / analog)

ASTM D 323-A+D - IP 69-A+D - ISO 3007-A+D - JIS K2258 ASTM D 323-C - IP 69-C - ISO 3007-C - JIS K2258

- liquid chamber (1 opening) for less than 180 kPa
- liquid chamber (2 openings) for above than 180 kPa
- digital manometer PA-REID or analog manometer available
- 3 or 6 place baths available

Datasheet: 13-0201\_digital.pdf 13-0201\_analog.pdf

Ref.-No: 13-0201 / 107034 (<180 bar) 13-0202 / 107035 (>180 bar)



## Carbon Residue of Petroleum Products

- Ramsbottom Method - RCRT (semi-automatic)

ASTM D 524 - FTM 791-5002 - IP 14 - ISO 4262

Datasheet: 13-0870.pdf

Ref.-No: 13-0870 / 107327 (230V) 13-0871 / 107328 (115V)



## - Conradson Method - CCR (manual)

ASTM D 189 - DIN 51 551-1 - FTM 791-5001 - IP 13 - ISO 6615 - JIS K2270

13-0841 for MUNICIPAL gas supply 13-0842 for BUTANE/PROPANE gas supply 13-0843 for NATURAL gas supply Datasheet: 13-0841.pdf

Ref.-No: 13-0841 / 106547 13-0842 / 106548

13-0843 / 106549

# Fuel Testing



## Cold Filter Plugging Point of Diesel & Heating Fuels

- CFPP I (manual)

ASTM D 6371 - EN 116 - IP 309 - JIS K2288

- Cryostat with 1 Test-Chamber

Datasheet: 13-2418.pdf

Ref.-No:

**13-2418 / 107162** (230V)



## Hydrocarbons in Liquid Petroleum Products

- Fluorescent Indicator Adsorption - FIA (manual)

ASTM D 1319 - FTM 791-3703 - IP 156 - ISO 3837 - JIS K2536

- 4-place apparatus
- standard column test kit or precision bore column test kit

Datasheet: 13-0930.pdf

Ref.-No:

13-0930 / 107158

(230V)

13-0929 / 107157





## Sediment in Crude & Fuel Oil

- Extraction Method (manual)

ASTM D 473 - FTM 791-3002 - IP 53 - ISO 3735

Datasheet: 13-0321.pdf

Ref.-No: 13-0321 / 106715

# Lubricant Testing



## Demulsibility (Water Separation) of Petroleum Oils & Synthetic Fluids

- Herschel Stirring Method - DH 5 (semi-automatic)

ASTM D 1401 - ISO 6614

- full-view bath with 8 test and 2 pre-tempering places
- variable stirrer speed with digital display
- automatic timer stop and audible alarm

Datasheet: 16-2600.pdf

Ref.-No:

16-2600 / 106755 (230V)

16-2601 / 108373 (115V)



### Foaming of Lubricating Oils

ASTM D 892 (sequence I-III)- IP 146 - ISO 6247 - JIS K2518

Ontional.

ASTM D 6082 (sequence IV)

- Twin Foam-Tester Quadruple (manual)
- two 4 place baths
- full-view baths with digital thermostats
- each bath to be maintained individually at 24, 49, 93.5 or 150 °C
- Single Foam-Tester (manual)
- 4 place bath
- full-view bath with digital thermostat
- to be maintained at 24, 49, 93.5 or 150 °C

Datasheet: 16-1470.pdf

Ref.-No:

16-1470 / 106571

(230V)

16-1471 / 108356

(115V)

Ref.-No:

16-1472 / 106572

(230V)

16-1473 / 108357

(115V)



### Corrosion Prevention of Mineral Oil

- TOR (semi-automatic)

ASTM D 665 - FTM 791-4011 - IP 135 - ISO 7120 - JIS K2510 - NACE TM0172-2001

ASTM D 3603 - ASTM D 5534 - FTM 791-5315

Datasheet: 16-0724.pdf

Ref.-No:

16-0724 / 106566

(230V)

16-0725 / 106567

(115V)



### Friction & Wear of Lubricating Oil & Cutting Fluid

- Reichert Method - M 2 (manual)

Datasheet: 15-0035.pdf

Ref.-No:

15-0035 / 107165

(230V)



## Cloud & Pour Point of Petroleum Oils

ASTM D 97 - ASTM D 2500 - ASTM D 5853 - EN 23 015 - FTM 791-201 - IP 15 - IP 219 - IP 441 - ISO 3015 - ISO 3016 - JIS K2269 - JIS K2601

## - CAPP I (semi-automatic)

1 chamber with 4 test positions & metal-block cryostat

Datasheet: 16-2372.pdf

Ref.-No: 16-2372 / 106533 (230V)



### - CAPP IV (semi-automatic)

4 chambers with 4 test positions each & metal-block cryostat

Datasheet: 16-2378.pdf

Ref.-No: 16-2378 / 107029 (230V)



### - CAPP V (semi-automatic)

5 chambers with 4 test positions each & metal-block cryostat

Datasheet: 16-2360.pdf

Ref.-No: 16-2360 / 106532 (230V)

## Greases



### Consistency of Lubricating Grease & Wax

- Cone Penetration Method - PNR 12 (automatic)

ASTM D 217 - ASTM D 937 - ASTM D 1321 - ASTM D 1403 - DAB 10-V.5.8.1 - DIN 51 579 - DIN 51 580 - IP 50 - IP 179 - IP 310 - IP 376 - ISO 2137 - JIS K2220 - JIS K2235 - SMS 658

- cones (standard, quarter-scale, half-scale, micro-cones)
- disks
- needles

(For further accessories see chapter Penetration & Texture.)

Datasheet: 18-1120\_Grease.pdf

Ref.-No: 18-1120 / 106813 (100-240V, EU) 18-1121 / 106814 (100-240V, US)



## Shear Stability of Lubricating Grease

- Grease Working Machine (automatic)

ASTM D 217 - FTM 791-313 - IP 50 - ISO 2137 - JIS K2220

- two-place model
- worker with 51-hole or 270-hole worker plate
- worker with screw or bayonet-coupling

Datasheet: 17-1506.pdf

Ref.-No: 17-1506 / 106763 (230V) 17-1505 / 106762 (115V)



### Oxidation Stability of Lubricating Grease

- Oxygen Bomb Method - OFA & PA 5 (semi-automatic)

ASTM D 942 - DIN 51 808 - FTM 791-3453 - VV-L-791e-5314 - IP 142 - JIS K2220

- screw-cap oxidation vessel OFA-2 with test glasses
- digital manometer PA5-OFA
- 4-place bath

Datasheet: 17-0212.pdf

Ref.-No: 17-0212 / 107088 (230V)



- Conical Sieve Method (manual)

ASTM D 6184 - FTM 791-321

Datasheet: 17-0131.pdf

Ref.-No:

17-0131 / 106720



- Pressure Filtration Method (manual)

DIN 51 817 - IP 121

Datasheet: 17-0140.pdf

Ref.-No:

17-0140 / 106721





### Consistency of Bitumen

- Needle Penetration Method - PNR 12 (automatic)

ASTM D 5 - EN 1426 - IP 49 - JIS K2207

- standard needles (precision made, factory or officially certified)
- cones
- force-sensor plunger for automatic surface detection

(For further accessories see chapter Penetration & Texture.)

Datasheet:

18-1120\_Bitumen.pdf

Ref.-No:

**18-1120 / 106813** (100-240V, EU) **18-1121 / 106814** (100-240V, US)



## Softening Point of Bitumen, Binders, Resins & Thermoplastic Adhesives

- Ring & Ball Method - RKA 5 (automatic)

ASTM D 36 - AASHTO T53 - EN 1427 - IP 58 - JIS K2207 EN 13 179-1 ISO 4625-1 ASTM E 28 EN 1238

- available with electromagnetic ball dispenser and automatic ball application
- optional accessories for IP 58 and
  Wilhelmi-Method DIN 1996-15 / EN 1871-F

(115V, automatic

Datasheet: 10-0800.pdf

Ref.-No: 10-0800 / 106209 (230V)

**10-0801 / 106210** (115V)

10-0830 / 106212 (230V, automatic application) 10-0831 / 109476 (115V, automatic application)



### Tensile Properties of Bitumen

- Ductility Method
- Force-Ductilometer DDA 3 (automatic)

Elongation: ASTM D 113 - AASHTO T51 - JIS K2207 - DIN 52013

Recovery: ASTM D 6084 - EN 13 398 - IP 516 Force: EN 13 703 - AASHTO T300 - IP 515

EN 13 589 - IP 520

- bath length 100 cm or 150 cm available
- 3 programs
- PC software DDAcon available

Datasheet: 10-0360.pdf

Ref.-No:

10-0360 / 106178 (230V, 100 cm) 10-0361 / 106179 (115V, 100 cm)

10-0364 / 106180 (230V, 150 cm) 10-0365 / 108312 (115V, 150 cm)

### - Ductilometer - DD 3 (semi-automatic)

Elongation: ASTM D 113 - AASHTO T51 - JIS K2207 - DIN 52 013 Recovery: ASTM D 6084 - EN 13 398 - IP 516

- bath length of 100 cm or 150 cm available
- 3 simultaneous test runs possible
- printer & 3 molds included

Datasheet: 10-0350.pdf

Ref.-No:

10-0350 / 106176 (230V, 100 cm) 10-0351 / 108310 (115V, 100 cm)

10-0354 / 106177 (230V, 150 cm) 10-0355 / 108311 (115V, 150 cm)

# 4

## Penetration & Texture Testing



### Consistency of Various Materials

- Penetrometer Method - PNR 12 (automatic)

ASTM, IP, ISO, EN, DIN, European Pharmacopoeia etc. depending on accessories

- multi-purpose use

- Needles

- test accessories on user's choice
- microprocessor controlled with LCD
- automatic surface detection possible

Datasheet: 18-1120.pdf

Ref.-No:

Datasheet:

18-2220.pdf

18-1160.pdf

18-1120 / 106813 (100-240V, EU) 18-1121 / 106814 (100-240V, US)



## Penetrometer Accessories

suitable for Petrotest Penetrometer

- Test Kits

Sets acc. to standard requirements (incl. needle/cone, plunger, weight, sample container etc.)

(standard, tapered, pin, VICAT and certified needles)

- Cones & Discs 18-0101.pdf

(full-scale-, half-scale-, quater-scale-, micro-, hollow-cones and discs)

- Rods & Rams 18-0260.pdf

(rods, rams, cylinders, cutter, balls etc.)

- Plunger & Weight 18-0132.pdf

(plunger with or without surface detection sensor, additional load weights)

- Sample Jars & Auxiliary Equipment 18-0066.pdf

(standard- & grease-jars, wax-cylinders, centering devices etc.)

- Sample Tempering Units 18-0065.pdf

(transfer dish for tempering during measurements, circulator-baths for sample pre-tempering and tempering dish supply)

- Grease Worker (Micro-Cones) 18-0134.pdf





## Oxidation Stability of Food & Cosmetics

- RSSOT (Rapid Small Scale Oxidation Test)
- PetroOXY Stainless Steel (automatic)
  with stainless steel test chamber
- PetroOXY Stainless Steel Active (automatic) automatic re-cooling between tests by Peltier elements

Suitable for liquid & solid samples (may require accessories).

Datasheet: 13-3008.pdf

Ref.-No: 13-3008 / 107135

(230V

13-3009 / 107136

(115V)

Datasheet: 13-3016.pdf

Ref.-No:

13-3016 / 108338

(230V)

13-3017 / 108339

(115V)



## - Tempering Bath - High Temperature

- 4-place full-view borosilicate bath
- up to +150 °C max.
- for hydrometer or pycnometer

Datasheet: 26-0017.pdf

Ref.-No:

26-0017 / 106599

(230V)

26-0018 / 106600

(115V)



### **Density Accessories**

suitable for Petrotest Density Baths:

- Hydrometer

Bitumen: ASTM D 3142 Oil: ASTM D 287 - ISO 3675

ASTM D 1298 - IP 160 - DIN 51 757-1 - JIS K2249

Solvent: ASTM D 2111-A

- Hydrometer, DIN 12 791 Series M 100
- Hydrometer, API Specific Gravity ASTM E 100
- Hydrometer, ASTM Specific Gravity ASTM E 100
- Hydrometer, Density Series M 50 SP
- Hydrometer, Density Series L 50 SP
- Hydrometer, Specific Gravity Series M 50 SP
- Hydrometer, Specific Gravity Series L 50 SP

### - Pycnometer

Bitumen: ASTM D 70 - DIN 52 004 - IP 190

Oil: ISO 3838 - JIS K2249 - DIN 51 757-3 - ASTM D 1481 - IP 189

- LIPKIN for Oil
- GAY-LUSSAC for Bitumen & Oil
- HUBBARD for Bitumen & Oil

Datasheet: 26-0400.pdf

Datasheet: 26-0712.pdf



#### - Capillary Tubes Datasheet: Glassware suitable for Petrotest Viscosity Baths:

22-0120.pdf - UBBELOHDE ASTM-Type - UAV (Suspended Level) 22-0100.pdf - UBBELOHDE DIN-Type - UDV (Suspended Level) - UBBELOHDE Micro - UMV (Suspended Level) 22-0390.pdf - CANNON-UBBELOHDE Semi-Micro - CUSMV (Susp. Level) 22-0360.pdf - CANNON-FENSKE Routine - CFRV (Ostwald) 22-0000.pdf 22-0050.pdf - CANNON-FENSKE Opaque - CFOV (Reverse Flow) - BS/IP U-Tube - BS/IP/RF (Reverse Flow) 22-0200.pdf - BS/IP - BS/IP/SL(S) (Suspended Level) 22-0230.pdf 22-0400.pdf - Micro-OSTWALD - MOV (Ostwald) - ZEITFUCHS Cross-Arm - ZCAV (Reverse Flow) 22-0530.pdf 22-0500.pdf - Vacuum - CMVV, AIVV, MKVV



### Certified Reference Material - CRM

- Distillation 11-0590.pdf - Fuel 13-0626.pdf - Oil 16-1080.pdf - Viscosity 24-0551.pdf - Density 26-0702.pdf - Flash Point 50-9000.pdf



## **Metal Test Specimens**

Datasheet: - Rust Preventives 40-1001.pdf - Fuels and Fuel Additives 40-1510.pdf - Solid Film Lubricants 40-2002.pdf - Antifreeze and Soluble Oils 40-3011.pdf - Lubricating Oils and Hydraulic Fluids 40-4010.pdf

- Special Tests

- Miscellaneous



### Thermometers - ASTM / IP

- precision made - officially certified - with or without collar Datasheet:

40-5010.pdf

Datasheet:

50-9121.pdf

16-0963.pdf (ASTM) 16-0371.pdf (IP)