

# OXIDATION

## OXIDATION STABILITY - MINERAL INSULATING OIL

### ASTM D2440 IP 307 (obs) ISO 7624 OXIDATION STABILITY OF MINERAL INSULATING OIL

*This test method determines the resistance of mineral transformer oils to oxidation under prescribed accelerated aging conditions. Oxidation stability is measured by the propensity of oils to form sludge and acid products during oxidation. This test method is applicable to new oils, both uninhibited and inhibited, but is not well defined for used or reclaimed oils*

### IP 48 DETERMINATION OF OXIDATION CHARACTERISTICS OF LUBRICATING OIL

*This method indicates the tendency of a lubricating oil to deteriorate on oxidation under specified conditions*

### IP 280 PETROLEUM PRODUCTS AND LUBRICANTS - INHIBITED MINERAL TURBINE OILS - DETERMINATION OF OXIDATION STABILITY

*This International Standard specifies a method for the determination of the resistance to oxidation under specified conditions of unused inhibited mineral turbine oils. The method is also applicable to other types of oil, such as hydraulic oil.*

### IP 306 DETERMINATION OF OXIDATION STABILITY OF STRAIGHT MINERAL OIL

*This method is designed to give a measure of the tendency of straight (i.e. plain) mineral lubricating oil to oxidise under specified conditions*

### IP 335 (obs) STABILITA' ALL'OSSIDAZIONE DEGLI OLI MINERALI ISOLANTI INIBITI

### EN 61125-A TEST FOR EVALUATING THE OXIDATION STABILITY OF UNUSED UNINHIBITED MINERAL INSULATING OIL

### EN 61125-B TEST FOR EVALUATING THE OXIDATION STABILITY OF UNUSED INHIBITED MINERAL INSULATING OILS BY MEASUREMENT OF THE INDUCTION PERIOD.

### EN 61125-C TEST FOR EVALUATING THE OXIDATION STABILITY OF UNUSED HYDROCARBON BASED INSULATING LIQUIDS UNDER ACCELERATED CONDITIONS REGARDLESS OF WHETHER OR NOT ANTIOXIDANT ADDITIVES ARE PRESENT

6-positions oil bath with double bottom. Stainless steel structure with insulation double wall, cover with 6 holes. support for the flowmeters and absorption tubes. Temperature regulation by digital thermoregulator PID with PT100 probe class A and overtemperature alarm, stainless steel heater, motor stirrer, safety internal level for low liquid with warning lamp, drain cock  
Technical specifications:

- Temperature: from ambient to 210°C (410°F)
- Stability:  $\pm 0.1^\circ\text{C}$
- Power supply: 230V  $\pm 10\%$  50/60Hz
- Power: 2400W
- Dimensions: 60x57x52 cm
- Weight: 35 kg

### 1980 OXIDATION STABILITY BATH

#### 1980/S/4 OXIDATION STABILITY DRY BATH (4 POSITIONS)

With aluminum block dry model, 4 positions  
Technical specifications:

- Temperature: from ambient to 210°C (410°F)
- Stability:  $\pm 0.5^\circ\text{C}$
- Power supply: 230V  $\pm 10\%$  50/60Hz

#### 1980/S/8 OXIDATION STABILITY DRY BATH (8 POSITIONS)

With aluminum block dry model, 8 positions  
Technical specifications:

- Temperature: from ambient to 210°C (410°F)
- Stability:  $\pm 0.5^\circ\text{C}$
- Power supply: 230V  $\pm 10\%$  50/60Hz
- Power: 1900W
- Dimensions: 45x45x52 cm
- Weight: 45 kg



1980

2010



1980/S/8

2008

## OXIDATION

### ACCESSORIES ON REQUEST

10-1980	OXIDATION/ABSORPTION TUBE Borosilicate glass Ø26x210 mm with Drechsel head and inlet tube 24/29 ground joint <b>The test method "B" and "C" required two oxidation tube</b>
10-1981	CONNECTION SET For connections the oxidation tube and absorption tube and flowmeter. Consisting of: 3 m silicone tube and 10 glass tubing.
10-1983	FLOWMETER 0.6-4 l/h For oxygen at 1 l/h For methods: ASTM D2440, IP 280, IP 306, IP 307, IP 335, EN 61125-A EN 61125-B
10-1984	FLOWMETER 0.1-1.55 l/h For air at 0.15 l/h For method: EN 61125-C
10-1985	FLOWMETER 2.5-25 l/h For air at 15 l/h For method: IP 48
10-1987	SOAP BUBBLE FLOWMETER Graduated from 0 to 10 ml
10-1928	REDUCER MANOMETER FOR O <sub>2</sub> Cylinder fitting
10-1929	REDUCER MANOMETER FOR AIR Primary 0-250 bar, reducer 0-1 bar
10-1988	COPPER CATALYST, pack of 5 pcs L=3 m., (not necessary for IP 48)
10-1441/P	SILICON CARBIDE ABRASIVE CLOTH 100 GRIT, pack of 25 m (not necessary for EN 61125)
10-1988/P	SILICON CARBIDE ABRASIVE CLOTH 220 GRIT, pack of 25 m (not necessary for EN 61125)
10-0371/20	SILICONE OIL 20 cSt pack of 25 kg For temperature from ambient to 120°C (248°F)
10-0371/50	SILICONE OIL 50 cSt, pack of 25 kg For temperature from 100°C (212°F) to 200°C (392°F)
10-1986	PORCELAIN CRUCIBLE, pack of 5 pcs 50 ml
10-BUR/10	BURETTE 10 ml., div.0.01 ml.
10-1989	FILTER FUNNEL 125 ml.
2470/BCA200	ANALYTICAL BALANCE Range 220 g., readout 0.0001, pan Ø80
10-0332	DIGITAL STOPWATCH 7 digit LCD, max.10 hours, 1/100 sec, digit h=8 mm
T-IP22C	THERMOMETER IP22C For method IP 48
T-AS9C	THERMOMETER ASTM 9C IP 15C For method IP 280, IP 307, IP 335
T-AS40C	THERMOMETER ASTM 40C IP 80C For method IP 307, IP 335, EN 61125-A,
T-AS41C	THERMOMETER ASTM 41C IP 81C For method ASTM D2440, IP 280, IP 306, IP 335, EN 61125-B, EN 61125-C

### CONSUMABLES x 2 YEARS

10-1988	COPPER CATALYST, pack of 5 pcs x4
10-1441/P	SILICON CARBIDE ABRASIVE CLOTH 100 GRIT, pack of 25 m x2
10-1988/P	SILICON CARBIDE ABRASIVE CLOTH 220 GRIT, pack of 25 m x2

### SPARE PARTS

15-1980/P	OXIDATION/ABSORPTION TUBE
15-1980/D	DRECHSEL HEAD With inlet tube
14-0002	PROBE PT100A
11-0016	HEATER (for oil bath)
11-1980/S	HEATER (for dry bath)
16-0005	DIGITAL THERMOREGULATOR
15-0015	STATIC RELAY
15-0004	BIPOLAR GREEN SWITCH
15-0005	BIPOLAR YELLOW SWITCH
12-0001	MOTOR STIRRER