

Oxidation Stability of Lubricating Greases

test method

The sample is oxidized in a bomb initially charged with oxygen at 110psi (758kPa) and maintained at elevated temperature for a specified aging period. The pressure drop inside the bomb is measured by means of a gauge or transducer.

oxidation stability test apparatus

- Conforms to ASTM D942 and related specifications
- Four sample testing capacity
- Available Oxidata® Pressure Measurement System
- Consists of Oxidation Bombs, Sample Dishes, Pressure Measuring & Recording Equipment, and Oxidation Bath

Oxidation Bomb – Stainless steel bomb consists of body, lid with stem and needle valve, and dish holder per ASTM specifications. Bomb interior surfaces and inside of stem have a high polish to facilitate cleaning. Safely withstands a working pressure of 180psi (1241kPa) at 99°C (210°F). Includes PTFE gasket seals (3) and cap screws with wrench. PTFE fluorocarbon seals are available (see Accessories).

Pressure Measurement & Recording Equipment – Select mechanical pressure gauges or, for greater convenience and accuracy in test reporting, the Oxidata® Pressure Management System designed expressly for ASTM oxidation tests. Pressure gauge measures pressure inside Oxidation Bomb with accuracy of better than 0.5psi (3.45kPa) in accordance with ASTM specifications. Range: 0-160psi (0-1100kPa), graduated in 1psi intervals. Cleaned for oxygen service.

Oxidation Bath – Constant temperature oil bath holds bombs at the proper depth for determining oxidation stability of lubricating greases. Fully digital touch screen controller provides quick temperature stabilization without overshoot, and the bath is protected by a redundant overtemperature control circuit that interrupts power should bath temperature exceed a programmed cut-off point. Display provides actual setpoint temperature values in °C/°F format. Contact your Koehler representative for information. Heavily insulated welded stainless steel bath interior has a bomb support rack and overflow standpipe/drain to maintain proper working depth. Steel exterior has a corrosion resistant polyurethane enamel finish.

specifications

Conforms to the specifications of:

ASTM D942; IP 142; DIN 51808; FTM 791-3453

Oxidation Bath:

Capacity: Four (4) oxidation bombs

Temperature Range: ambient to 221°F (105°C)

Bath Medium: 7.2 gal (27.2L) white technical oil

Electrical Requirements:

115V 60Hz, Single Phase, 10A

220-240V 50/60Hz, Single Phase, 5A



K64500 Oxidation Stability Test Apparatus & K11000 Oxidation Bomb

ordering information

catalog no.	description	qty
K64500	Grease Oxidation Precision Bath, 115V 60Hz	1
K64590	Grease Oxidation Precision Bath, 220-240V 50/60Hz	
K11000	Oxidation Bomb	4
311-160-003	Pressure Gauge	4

accessories

K11040	Borosilicate Glass Dish
250-000-22F	ASTM 22F Thermometer
250-000-22C	ASTM 22C Thermometer
355-001-001	White Technical Oil, 1 gal container
355-001-003	White Technical Oil, 5 gal container
K10504-0-1	Transducer Assembly
K10551	Pressure Line for Pressurizing Oxidation Bomb 6 ft (1.83m) long, with quick release coupling for needle valve on bomb and threaded fitting for oxygen tank
K10556	Oxygen Manifold Pressure Relief System Connects to oxygen source to prevent overcharging of the bomb. Equipped with relief valve to vent at 125psi and 300 series stainless steel 150psi burst disk assembly.
K11029	PTFE-fluorocarbon Gasket