Demulsibility Characteristics of Lubricating Oils

test method

Tests the ability of medium to high viscosity oils to separate from water when water contamination and turbulence are encountered. The sample is stirred together with distilled water for 5 min. at constant temperature. After a specified settling period, the degree of separation is measured by volume and the percentage of water in oil is determined. For lighter oils and synthetic fluids, the ASTM D1401 Water Separability Test is used.

demulsibility apparatus

- Conforms to the specifications of ASTM D2711
- Variable stirrer speed
- Choice of digital or analog bath models

Stirrer – Complete stirrer assembly per Fig. 1 and 2 of ASTM D2711, including variable high speed drive motor, stainless steel propeller shaft, top, center and bottom bearings, and steel motor housing with positioning plate. Entire assembly mounts vertically in K39190/K39199 Constant Temperature Bath. Built-in tachometer disc allows for precise stirrer speed adjustment.

Constant Temperature Baths – Standard model holds two K39103 Stirrers and two K39120 Separatory Funnels in proper alignment for demulsibility characteristics testing. Stirrers mount securely on a stainless steel support plate having brackets for testing and drainage positions. Separate motor speed controls are provided for each stirrer. All wetted parts are constructed of stainless steel. Microprocessor digital temperature control with dual LED displays for setpoint and actual temperatures and an illuminated bath interior with window for viewing sample cylinders. Digital LED speed control is provided for each stirrer.

K39190 Demulsibility Bath with Stirrers and Funnels

specifications

Conforms to the specifications of: ASTM D2711
Capacity: Two (2) sample-water mixtures
Maximum Temperature: 212˚F (100˚C)
Temperature Control:
Microprocessor digital control with LED display
Bath Medium: 9 gal (38.5L) water

Electrical Requirements
115V 60Hz 220-240V 50/60 Hz

Dimensions WxDxH in
151⁄4x15x37(39x38x94)
Net Weight: 72 lbs (32.6kg)

Shipping Information
Shipping Weight 133 lbs (60.3kg)
Dimensions: 25.4 Cu. ft.

ordering information

catalog no.	description	qty
K39190	Demulsibility Bath, 115V, 60Hz	1
K39199	Demulsibility Bath, 220-240V, 50/60Hz	
K39103	Stirrer**	2
	**Suitable for use with K39190 & K39199	

ordering information

catalog no.	description	qty
K39120	Separatory Funnel With 0-500mL graduations. Meets ASTM specifications.	2
K39130	Solvent Tank. Immerses stirrer assembly for convenient cleaning after testing.	1
K39140	Forced Warm Air Dryer, 115V 60Hz High output 1400W dryer and brass cylinder mounted on a sturdy base. Rapidly dries stirrer assembly after cleaning.	
K39149	Forced Warm Air Dryer, 220-240V 50/60Hz	1
K39150	Sampling Gauge and Centering Device Per Fig. X1.1 of ASTM D2711. Aids in accurately obtaining 50mL samples from separatory funnels for the 'percent water in oil' determination.	1
360-000-003	Digital Tachometer Hand held non-contact LCD tachometer takes measurements up to 3 ft away with 1rpm accuracy. Supplied with four 1.5V AA batteries.	1
250-000-09F	ASTM 9F Thermometer Range: 20 to 230˚F	1
250-000-09C	ASTM 9C Thermometer Range: –5 to +110˚C	
K39170	Conditioning Bath, 115V 60Hz Constant temperature water bath holds 8 separatory funnels in two removable 4-unit racks for conditioning prior to testing in Demulsibility Apparatus. Includes microprocessor digital temperature control, automatic water level control and gabled cover.	1
K39179	Conditioning Bath, 220-240V 50/60Hz	

Koehler INSTRUMENT COMPANY, INC.
85 Corporate Drive, Holtsville, New York 11742
1-800-878-9070 (in u.s. only) TEL: +1 631 589 3800 FAX: +1 631 589 3815
Email: sales@koehlerinstrument.com www.koehlerinstrument.com

©2021 Koehler Instrument Company, Inc.