MFFT™

MINIMUM FILM FORMING TEMPERATURE BAR

PAINTS & COATINGS

Determination of minimum film forming temperature and white point for:
Water-borne coatings • polymer dispersions • synthetic latexes • emulsions

ADHESIVES

Temperature optimisation in such areas as:
Coalescence of water-borne adhesives and minimum temperature for epoxy resin cure

RHOPOINT INSTRUMENTS

TAKE A CLOSER LOOK AT SURFACE QUALITY

MFFT™

PAINTS & COATINGS

The minimum film-forming temperature (MFFT) of a paint or coating is the lowest temperature at which it will uniformly coalesce when laid on a substrate as a thin film. The standard test for determining this temperature involves using a MFFT-BAR, as specified by such standards as ASTM D 2354 and ISO 2115. The design of the Rhopoint instrument is based directly on these standards.

ADHESIVES

The MFFT of one-pack adhesives can be found in a similar way to paints and coatings. With two-pack adhesives, a strip of aluminium foil can be laid on the platen, to ease cleaning, before applying the adhesive. Two-pack adhesives do not show an MFFT, but the minimum cure temperature can be found by scraping the sample with a spatula.

DESIGN

The new MFFT-B benefits from an easy to use touch screen interface, digital MFFT temperature calculation and output to handy results labels. These additions to the trusted Rhopoint MFFT make the instrument easier to operate with improved certainty of results.

The temperature bar consists of a copper platen with an electronically imposed temperature gradient. Built in temperature sensors monitor the temperature across the platen, a graph of the gradient is displayed on the touch screen.

Purge gas is integrally dried, and flows over the platen via a sintered distribution block. The hinged perspex cover provides thermal and atmospheric insulation whilst allowing constant visual inspection of a test. A cursor is moved to indicate the identified MFFT point; the instrument calculates and displays the temperature in the required units.

The instrument can be supplied with an optional results label printer, recorded values include the time and date of the test, the test time and identified MFFT temperature. The printed label can be attached to retained sample bottles or job sheets.

RUNNING

The desired temperature program is selected and the instrument allowed to reach thermal equilibrium. Tracks of wet test material are applied using a cube applicator, or spreader. Once the material has dried or cured the result is visually apparent.

STANDARD FEATURES

Standard model (MFFT–60) has six temperature programs:

Program	0	1	2	3	4	5	6
Cool end (˚C)	-10	-5	0	5	15	23	33
Warm end (˚C)	8	13	18	23	33	50	60

Nickel plated copper platen.
75µm 0.003" cube applicator.

OPTIONS

Additional three temperature programs on extended range model (MFFT–90):

Program	7	8	9
Cool end (˚C)	43	53	63
Warm end (˚C)	70	80	90

Grooved platen (eg for DIN 53787).

SPECIFICATIONS

Dimensions	(L × W × H) 550 × 610 × 350mm
Platen dimensions	(L × W) 483 × 235mm
Conforms to	ASTM D 2354, ISO 2115, DIN 53787 (by request)
Weight	38kg (85lb)
Mains	110–120V AC or 220–240V AC
Air	4 l min-1 @ 100 psig
Water	Mains pressure; gravity drain inlet temperature <_ 20°C
Order code	MFFT-60 (-10 to 60˚C) MFFT-90 (-10 to 90˚C)

Certificate no: FM 29741
ISO: 9001 – 2008

ASTM INTERNATIONAL ORGANIZATIONAL MEMBER

LOCAL AGENT

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