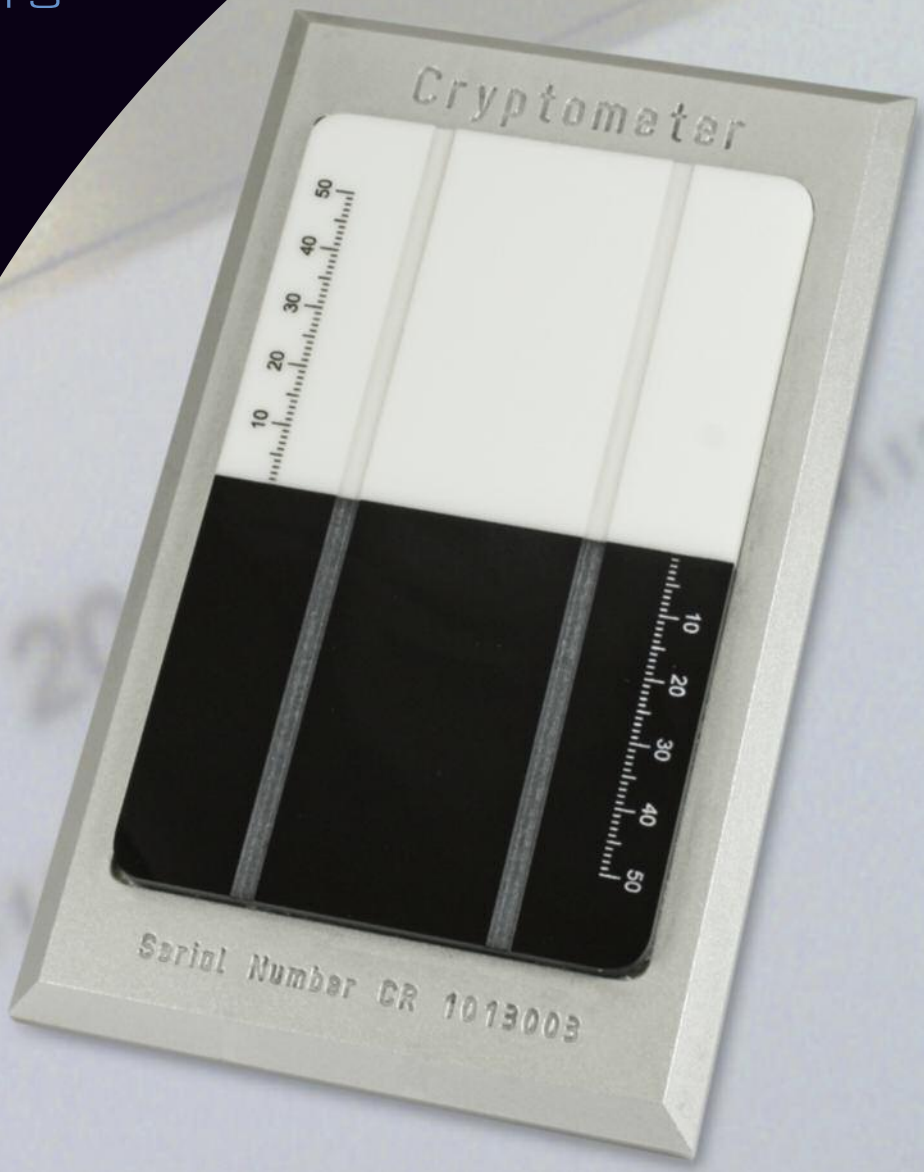
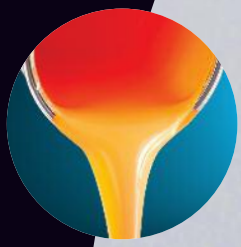
RHOPINT
INSTRUMENTS









www.rhopointinstruments.com

PFUND CRYPTOMETER

RHOPOINT
PAINTLAB+

- Wet film hiding power
- Wet film spreading power

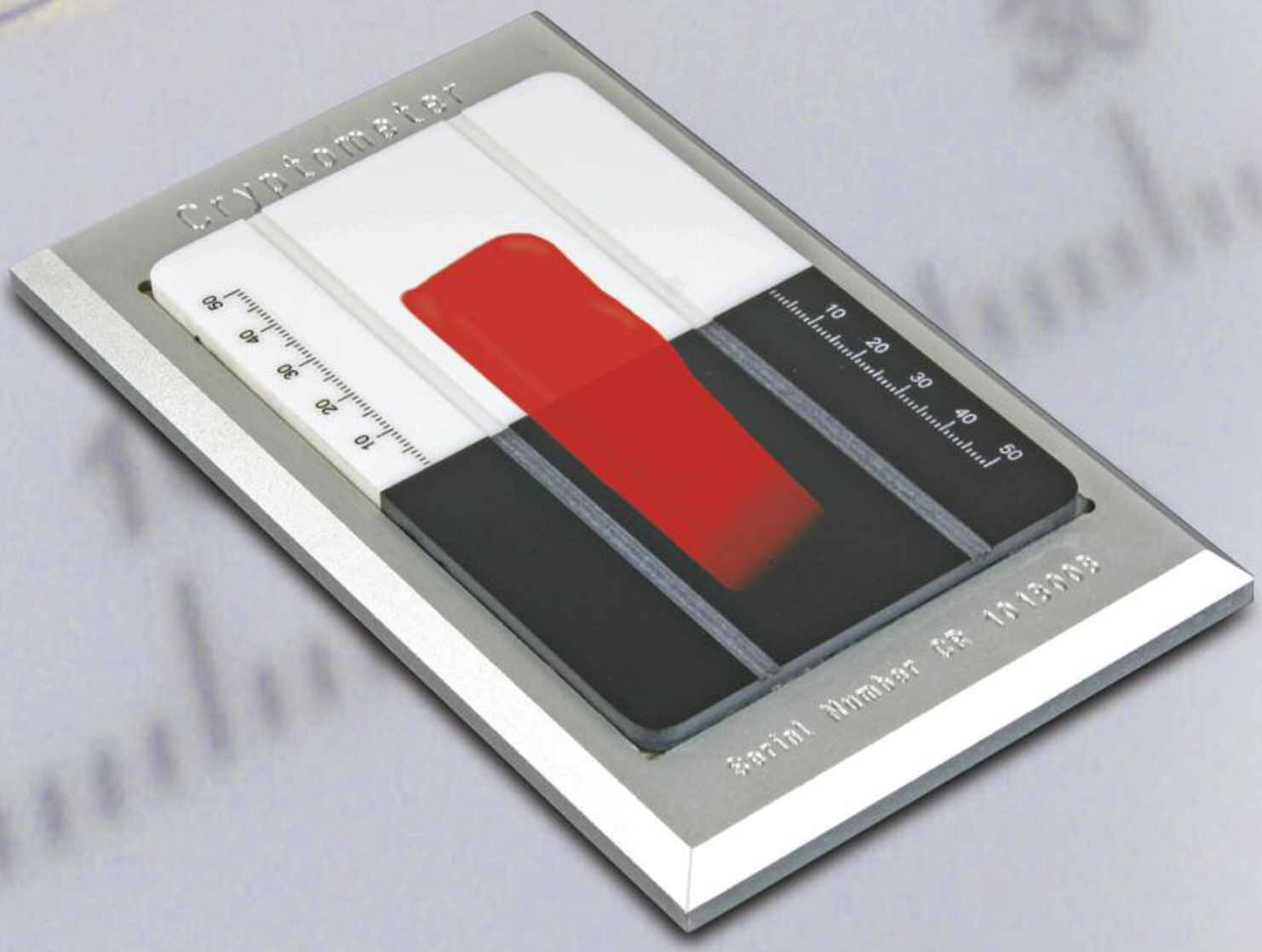
Rhopoint Instruments Limited
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PFUND CRYPTOMETER

The Rhopoint Instruments *PAINTLAB+* Cryptometer was developed to provide a simple and rapid subjective test method for the determination of opacity in terms of hiding and spreading powers.

This is required by some product specifications and national test methods which accept the limitations that it is the wet film, and not the dry coating, that is being measured.

The hiding and spreading powers of pigmented coatings are of fundamental importance and there are many methods by which the opacity of a coating may be measured.



RHOPOINT
PAINTLAB+

FEATURES

The Rhopoint *PAINTLAB+* Cryptometer is a wedge type film applicator, that determines the wet hiding power of a coating within a few minutes.

- Simple and accurate testing of wet film hiding power
- Determines thickness needed for complete opacity
- Gives estimate of coverage in square metres per litre
- Suitable for use with coatings containing pigments
- Ideal choice for quality control environment

INSTRUMENT DESIGN

The instrument consists of a glass plate, half black, half white, as the base. Each half of this base has a scale engraved from 0-50mm along one edge, starting from the division in the centre. Two glass top plates are included with each instrument and these have two metal supports at one end so that these transparent top plates rest at an angle when placed upon the black and white area of the base plate.

The top plates differ in the length of their tiny supports so that different angles are formed between the top plates and the base plate. A wedge angle constant (K) is given to each top plate. The angles range from K= .002, through K= .0035, K= .004, K= .007 up to the largest angle K= .008. The most popular constants being: K= .004 and K= .008

METHOD OF USE

The appropriate top plate for the paint to be tested is selected, usually K=.008 for light coloured paints and K= .004 for dark coloured paints. (Alternatively, K= 0.002 for higher opacity coatings and K= 0.007 for less opaque coatings). A blob of paint, typically 3-5 ml is placed in the centre of the base plate close to the black/white division. For light colours, the top plate (e.g. K= .008) is placed over the paint with the supports on the white area of the tile. The top plate is pressed down firmly so that the paint is spread without air bubbles to form a shallow wedge between the plates. This wedge will move with the top plate, the position of which is adjusted until the moment that the black/white division disappears. The scale reading is then noted from the black scale where the edge of the top plate makes contact with the base plate. When testing a dark coloured paint the top plate (e.g. K= .004) is used and the scale reading taken on the white area.

The thickness of paint in millimetres over the black and white division is obtained by multiplying the scale reading times the wedge constant K of the top plate used. This figure records the minimum film thickness necessary to obscure the black and white. The coverage or spreading power for this thickness can be obtained directly from the conversion tables below for each of the top plates.

CONVERSION TABLES

Coverage in sq. metres per litre

K = .004

	0	1	2	3	4	5	6	7	8	9
0	-	-	-	-	-	50.0	41.6	35.6	31.6	27.7
10	25	22.7	20.6	19.2	17.8	16.6	15.6	14.7	13.9	13.1
20	12.5	11.9	11.3	10.9	10.4	10.0	9.6	9.25	8.9	8.6
30	8.33	8.05	7.8	7.55	7.3	7.1	6.92	6.74	6.66	6.4
40	6.24	6.08	5.94	5.8	5.66	5.55	5.42	5.3	5.2	5.1

K = .008

	0	1	2	3	4	5	6	7	8	9
0	-	-	-	-	-	25.0	20.6	17.8	15.6	13.9
10	12.5	11.3	10.4	9.6	8.9	8.33	7.8	7.3	6.92	6.66
20	6.24	5.94	5.66	5.42	5.2	5.0	4.8	4.63	4.47	4.3
30	4.16	4.02	3.9	3.77	3.65	3.55	3.45	3.36	3.28	3.2
40	3.12	3.04	2.96	2.9	2.84	2.78	2.71	2.65	2.59	2.55

K = .002

	0	1	2	3	4	5	6	7	8	9
0	-	-	-	-	-	-	-	-	-	-
10	49.9	45.3	41.6	38.4	35.6	33.3	31.9	29.3	27.7	26.3
20	25.0	23.8	22.7	21.7	20.8	19.9	19.2	18.4	17.8	17.2
30	16.7	16.1	15.6	15.1	14.7	14.2	13.8	13.5	13.1	12.8
40	12.5	12.2	11.9	11.6	11.4	11.1	10.9	10.6	10.4	10.2

K = .0035

	0	1	2	3	4	5	6	7	8	9
0	-	-	-	-	-	57.1	47.4	40.8	35.6	31.6
10	28.6	25.9	23.8	21.9	20.4	19.0	17.8	16.7	15.8	15.0
20	14.3	13.6	12.9	12.4	11.9	11.4	11.0	10.6	10.2	9.9
30	9.5	9.2	8.9	8.7	8.4	8.1	7.9	7.7	7.5	7.3
40	7.1	6.9	6.8	6.6	6.5					

PFUND CRYPTOMETER

RHOPOINT PAINTLAB PLUS

INSTRUMENT SPECIFICATION

Ordering information:

Part No.	Description
RL-A-M50-CRYPTO4/8	Cryptometer and Slide 4 and 8
RL-A-M50-CRYPTO2/7	Cryptometer and Slide 2 and 7
RL-A-M50-CRYPTOSLIDE2	Slide 2
RL-A-M50-CRYPTOSLIDE3.5	Slide 3.5
RL-A-M50-CRYPTOSLIDE4	Slide 4
RL-A-M50-CRYPTOSLIDE7	Slide 7
RL-A-M50-CRYPTOSLIDE8	Slide 8

Dimensions: 101mm x 170mm x 20mm

Weight: 1kg

Packed weight: 1.5kg

Packed dimensions: 28cm x 22cm x 11cm

Commodity code: 9027 8099



ACCESSORIES

Included:

- Certificate of conformity

OPTIONAL EXTRAS

- UKAS / ISO 17025 calibration certificate

ASTM INTERNATIONAL ORGANIZATIONAL MEMBER

bsi. UKAS MANAGEMENT SYSTEMS

Certificate no: FM 29741
ISO 9001:2008

PRA PAINT RESEARCH ASSOCIATION MEMBER

LOCAL AGENT

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00312/03/14

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