

# ISO 6504-1:2019 (E)

## Paints and varnishes — Determination of hiding power — Part 1: Kubelka-Munk method for white and light-coloured paints

---

### Contents

	Foreword
	Introduction
1	Scope
2	Normative references
3	Terms and definitions
4	Principle
5	Kubelka-Munk equations
6	Apparatus and materials
6.1	Substrates
6.1.1	Determination of RB
6.1.2	Determination of $R^\infty$
6.2	Film applicators
6.3	Reflectometer
6.4	Template
7	Limitations
8	Sampling
9	Procedure
9.1	Determination of $R^\infty$
9.2	Determination of RB
9.2.1	Preparation of test films
9.2.1.1	General
9.2.1.2	Method using polyester film
9.2.1.3	Method using black glass plates
9.2.1.4	Drying and conditioning
9.2.2	Measurement of reflectance RB
9.2.2.1	General
9.2.2.2	Method using polyester film
9.2.2.3	Method using black glass plates
9.3	Determination of film thickness
9.3.1	General
9.3.2	Method using polyester film
9.3.3	Method using black glass plates
10	Expression of results
10.1	Calculation of wet film thickness
10.2	Calculation of hiding power
11	Precision
11.1	Repeatability (r)
11.2	Reproducibility (R)
12	Test report

**Annex A (informative) Graphs for determination of  $S_t$  from  $R_B$  and  $R_\infty$  for  $R_g = 0,80$**

**Annex B (informative) Table of values of reflectivity  $R_\infty$  and factor  $\alpha$  for  $R_g = 0,80$**

**Annex C (informative) Examples of the calculation of hiding power from measurements of  $R_B$  and  $R_\infty$**

**C.1 Determination of the scattering coefficient,  $S$**

**C.2 Determination of hiding power,  $V$**

**Page count: 36**