

# DIN EN ISO 6504-1:2019-09 (E)

**Paints and varnishes - Determination of hiding power - Part 1: Kubelka-Munk method for white and light-coloured paints (IS O 6504-1:2019)**

---

Contents	Page
European foreword.....	4
Foreword .....	5
Introduction .....	6
1    Scope.....	7
2    Normative references.....	7
3    Terms and definitions .....	7
4    Principle .....	7
5    Kubelka-Munk equations .....	8
6    Apparatus and materials.....	9
6.1    Substrates .....	9
6.1.1    Determination of $R_B$ .....	9
6.1.2    Determination of $R_\infty$ .....	10
6.2    Film applicators.....	10
6.3    Reflectometer .....	10
6.4    Template .....	10
7    Limitations.....	10
8    Sampling.....	10
9    Procedure.....	10
9.1    Determination of $R_\infty$ .....	10
9.2    Determination of $R_B$ .....	11
9.2.1    Preparation of test films .....	11
9.2.2    Measurement of reflectance $R_B$ .....	11
9.3    Determination of film thickness .....	12
9.3.1    General.....	12
9.3.2    Method using polyester film .....	12
9.3.3    Method using black glass plates.....	12
10    Expression of results.....	12
10.1    Calculation of wet film thickness.....	12
10.2    Calculation of hiding power .....	13
11    Precision.....	13
11.1    Repeatability ( $r$ ) .....	13
11.2    Reproducibility ( $R$ ).....	13
12    Test report.....	13
Annex A (informative) Graphs for determination of $St$ from $R_B$ and $R_\infty$ for $R_g = 0,80$ .....	14
Annex B (informative) Table of values of reflectivity $R_\infty$ and factor $\alpha$ for $R_g = 0,80$ .....	39

<b>Annex C (informative) Examples of the calculation of hiding power from measurements of <math>R_B</math> and <math>R_\infty</math>.....</b>	<b>40</b>
<b>C.1 Determination of the scattering coefficient, <math>S</math>.....</b>	<b>40</b>
<b>C.2 Determination of hiding power, <math>V</math> .....</b>	<b>40</b>
<b>Bibliography .....</b>	<b>42</b>