

# DIN EN ISO 22007-4:2024-04 (E)

## Plastics - Determination of thermal conductivity and thermal diffusivity - Part 4: Light flash method (ISO 22007-4:2024)

---

<b>Contents</b>	<b>Page</b>
European foreword .....	3
Foreword .....	4
<b>1 Scope</b> .....	<b>5</b>
<b>2 Normative references</b> .....	<b>5</b>
<b>3 Terms and definitions</b> .....	<b>5</b>
<b>4 Principle</b> .....	<b>6</b>
<b>5 Apparatus</b> .....	<b>6</b>
5.1 General .....	6
5.2 Furnace or climatic chamber .....	6
5.3 Flash source .....	8
5.4 Transient detectors .....	8
5.5 Thickness measurement device .....	9
<b>6 Test specimen</b> .....	<b>9</b>
6.1 Shape and dimension of the specimen .....	9
6.2 Preparation and conditioning of test specimen .....	9
6.3 Coating the specimen .....	9
<b>7 Calibration and verification</b> .....	<b>10</b>
7.1 Calibration of apparatus .....	10
7.2 Verification of apparatus .....	10
<b>8 Procedure</b> .....	<b>10</b>
<b>9 Data analysis</b> .....	<b>11</b>
<b>10 Uncertainty</b> .....	<b>13</b>
<b>11 Test report</b> .....	<b>13</b>
<b>Annex A (informative) Correction for finite pulse duration</b> .....	<b>14</b>
<b>Annex B (informative) Alternative methods of calculating thermal diffusivity</b> .....	<b>15</b>
<b>Annex C (normative) Samples and test specimen preparation for injection mouldable thermoplastics and thermosets</b> .....	<b>16</b>
<b>Bibliography</b> .....	<b>20</b>