

# ISO 1658:2022-01 (E)

## Natural rubber (NR) - Evaluation procedure

---

| <b>Contents</b>   | <b>Page</b> |
|---|-------------|
| Foreword.....   | iv          |
| <b>1 Scope</b> .....  | <b>1</b>    |
| <b>2 Normative references</b> .....   | <b>1</b>    |
| <b>3 Terms and definitions</b> .....  | <b>1</b>    |
| <b>4 Sampling and further preparative procedures</b> .....  | <b>2</b>    |
| <b>5 Physical and chemical tests on raw rubber</b> .....  | <b>2</b>    |
| 5.1 Mooney viscosity.....   | 2           |
| 5.2 Volatile-matter content.....  | 2           |
| 5.3 Other specifications on requirements.....   | 2           |
| <b>6 Preparation of test mix</b> .....  | <b>2</b>    |
| 6.1 General.....  | 2           |
| 6.2 Standard test formulae.....   | 2           |
| 6.3 Procedure.....  | 3           |
| 6.3.1 Equipment and procedure.....  | 3           |
| 6.3.2 Mill mixing procedure for Formulae (1) and 2 (gum compounds).....                                     | 3           |
| 6.3.3 Mill mixing procedure for Formulae (1) and 2 (gum compounds) using<br>masterbatches.....              | 4           |
| 6.3.4 Mixing procedures for Formula (3) (black-filled compound).....  | 4           |
| <b>7 Evaluation of vulcanization characteristics by a curemeter test</b> .....                              | <b>8</b>    |
| 7.1 Using an oscillating-disc curemeter.....  | 8           |
| 7.2 Using a rotorless curemeter.....  | 8           |
| <b>8 Evaluation of tensile stress-strain properties of vulcanized test mixes</b> .....                      | <b>9</b>    |
| <b>9 Precision statement</b> .....  | <b>9</b>    |
| <b>10 Test report</b> .....   | <b>9</b>    |
| <b>Annex A (normative) Procedure for preparing gum compounds through use of<br/>    masterbatches</b> ..... | <b>10</b>   |
| <b>Annex B (informative) Precision statement for both mill and internal mixer</b> .....                     | <b>12</b>   |
| <b>Bibliography</b> .....   | <b>17</b>   |