

# DIN EN 725-1:2008-06 (E)

## Advanced technical ceramics - Methods of test for ceramic powders - Part 1: Determination of impurities in alumina

---

| <b>Contents</b>   |   | <b>Page</b> |
|---|---|-------------|
| Foreword .....  |   | 3           |
| 1   | Scope .....   | 4           |
| 2   | Normative references .....  | 4           |
| 3   | Principle .....   | 4           |
| 4   | Reagents .....  | 4           |
| 4.1   | General .....   | 4           |
| 4.2   | Reagents for fusion .....   | 4           |
| 4.3   | Sulphuric acid-phosphoric acid mixture for acid dissolution ..... | 5           |
| 4.4   | Reagents for calibration .....                                    | 5           |
| 5   | Apparatus .....   | 5           |
| 6   | Test sample .....   | 5           |
| 7   | Decomposition of the test sample .....                            | 6           |
| 7.1   | General .....   | 6           |
| 7.2   | Fusion .....  | 6           |
| 7.3   | Acid dissolution .....  | 6           |
| 8   | Calibration graph .....   | 6           |
| 8.1   | General .....   | 6           |
| 8.2   | Fusion .....  | 6           |
| 8.3   | Acid dissolution .....  | 7           |
| 8.4   | Drawing the calibration curve .....                               | 7           |
| 9   | Adjustment of the apparatus .....                                 | 7           |
| 9.1   | Atomic absorption spectrometer .....                              | 7           |
| 9.2   | Inductively coupled plasma spectrometer .....                     | 8           |
| 10  | Measurements .....  | 8           |
| 11  | Expression of the results .....                                   | 8           |
| 12  | Test report .....   | 9           |
| Bibliography .....  |   | 11          |
| Annex A (informative) Repeatability and reproducibility ..... |   | 10          |