

ISO 19613:2026-09 (E)

Fine ceramics (advanced ceramics, advanced technical ceramics) - Measurement of viscosity of ceramic slurry by use of a rotational viscometer

Contents

Page

Foreword.....	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Principle.....	3
4.1 Rotational viscometer with defined shear rate.....	3
4.2 Single cylinder viscometer.....	4
5 Apparatus	4
5.1 General.....	4
5.2 Measuring system.....	4
5.2.1 General.....	4
5.2.2 Basic capacity of the instrument	4
5.2.3 Installation of rotational viscometer	4
5.3 Single cylinder viscometer.....	5
5.3.1 Main body of single cylinder viscometer	5
5.3.2 Spindle.....	5
5.4 Temperature-control device.....	5
5.4.1 Thermostat.....	5
5.4.2 Thermometer	5
6 Calibration of the rotational viscometer	5
7 Measurement condition	6
7.1 Temperature	6
7.2 Shear rate or angular velocity	6
7.3 Selection of geometry and/or spindle.....	6
8 Pretreatment of the sample	6
8.1 Conditioning.....	6
8.2 Mixing.....	6
8.3 Degassing	7
9 Measurement procedures	7
9.1 Sample loading.....	7
9.2 Container sealing.....	7
9.3 Determination of a flow or viscosity curve	7
9.3.1 General	7
9.3.2 Measurement with a shear rate or angular velocity sweep.....	7
9.3.3 Flow curve.....	8
9.3.4 Viscosity curve.....	8
9.4 Viscosity measurements.....	8
9.4.1 General	8
9.4.2 Measurement at fixed shear rate or angular velocity	8
9.4.3 Repeat and case of several measurements	9
10 Expression of the results.....	9
11 Test report.....	9
Annex A (informative) Coaxial double cylinder system	10

Annex B (informative) Cone and plate system	13
Annex C (informative) Parallel plate system	14
Annex D (informative) Single cylinder viscometer	16
Annex E (informative) Typical ranges of shear rate values	19
Bibliography	20