

ISO/TR 20659-1:2024-03 (E)

Rheological test methods - Fundamentals and interlaboratory comparisons - Part 1: Determination of the yield point

Contents	Page
Foreword	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Goal of the interlaboratory test	1
5 Metrological determination of the yield point	2
5.1 General.....	2
5.2 Shear rate-controlled rotational test.....	2
5.3 Yield point evaluation using flow curve regression models.....	2
5.4 Shear stress-controlled rotational test.....	4
5.5 Evaluation methods for yield points.....	4
5.5.1 General.....	4
5.5.2 Axis intercept for presentation of the flow curve using a linear scale.....	4
5.5.3 Plateau value for presentation of the flow curve using a logarithmic scale.....	5
5.5.4 Yield point evaluation at a reference value.....	5
5.5.5 Methods with regression lines for presentation in the $\lg \dot{\gamma}/\lg \tau$ diagram.....	6
5.5.6 Rotational test: viscosity maximum method.....	7
5.5.7 Tests with constant shear rate.....	8
5.5.8 Creep test.....	9
5.5.9 Oscillatory test: amplitude sweep.....	10
6 Results of the comparative testing programme	12
6.1 Performance of the tests.....	12
6.1.1 Preliminary tests.....	12
6.1.2 Comparative testing programme.....	12
6.2 Measuring samples.....	12
6.3 Method used for determination of the yield point.....	13
7 Result	14
8 Rheometer calibration and measurement uncertainty	15
Annex A (informative) Explanatory notes	16
Bibliography	17