

DIN EN 1427:2026-07 (E)

Bitumens and bituminous binders - Determination of the softening point - Ring and Ball method

Contents

Page

European foreword	4
1 Scope	7
2 Normative references	7
3 Terms and definitions	7
4 Principle	7
5 Reagents and materials	7
6 Apparatus	8
6.1 Ring and Ball apparatus	8
6.2 Calibration and verification	10
7 Test sample preparation	10
8 Procedure and reporting	11
8.1 General	11
8.2 Selection of bath liquid and temperature measuring device	11
8.2.1 Initial selection	11
8.2.2 Assessment of correct selection of bath liquid	11
8.3 Procedure for softening points 80 °C	12
8.4 Procedure for softening points above 80 °C and up to 150 °C	13
9 Expression of results	14
10 Precision	14
10.1 General	14
10.2 Repeatability	14
10.3 Reproducibility	14
11 Test report	15
12 Figures	16
Annex A (informative) Determination or verification of the response time of the temperature measuring device	21
A.1 General	21
A.2 Context	21
A.3 Principle	21
A.4 Procedure	24
A.4.1 General	24
A.4.2 Procedure	24
Annex B (informative) Examples of valid and invalid temperature gradients	25
B.1 General	25
B.2 Example 1 Bath liquid: Water	26

B.3	Example 2 Bath liquid: Glycerol	27
Annex C (informative)	Examples of even temperature distribution and experiences on beaker - stirrer combinations	29
C.1	Uneven temperature distribution due to layering of glycerol	29
C.2	Examples of beaker - stirrer combinations	29
Annex D (informative)	Trials on silicone oil as alternative to glycerol as bath liquid	31
D.1	General	31
D.2	Verification of influence of silicone oil on the test sample	31
D.3	Verification of speed of stirring on test results	31
Bibliography		33