

DIN EN 12697-26:2020-03 (E)

Bituminous mixtures - Test methods - Part 26: Stiffness

Contents		Page
European foreword		5
1	Scope	6
2	Normative references	6
3	Terms, definitions and symbols	6
3.1	Terms and definitions	6
3.2	Symbols	8
4	Principle	9
5	Sample preparation	9
5.1	Age of the specimens	9
5.2	Drying of the specimens	9
5.3	Dimensions and bulk density of the specimens	9
5.4	Number of test specimens	10
6	Checking of the testing equipment	10
7	Test methods	10
7.1	General	10
7.2	Codification of tests	10
7.2.1	Sinusoidal bending tests	10
7.2.2	Indirect tensile test (pulse or cyclic)	11
7.2.3	Cyclic or monotonous uniaxial tests	11
7.2.4	Loading conditions	11
7.2.5	Load amplitudes	11
7.2.6	Loading frequencies	11
7.3	Controlled strain rate loading	12
7.3.1	Test method	12
7.3.2	Loading conditions	12
7.3.3	Strain amplitudes for direct tensile tests	12
8	Temperatures	13
9	Expression of results	13
10	Test report	15
10.1	Introduction	15
10.2	General	15
10.3	Information on specimens	15
10.4	Information on test method	15
10.5	Information on the test and results	16
10.6	Optional information	16
11	Precision	16
Annex A (normative) Two point bending test on trapezoidal specimens (2PB-TR) or on prismatic specimens (2PB-PR)		17
A.1	Principle	17

A.2	Equipment	17
A.3	Specimen preparation	19
DIN EN 12697-26:2020-03 EN 12697-26:2018 (E) A.4 Procedure		20
Annex B (normative) Three point bending test on prismatic specimens (3PB-PR) and four point bending test on prismatic specimens (4PB-PR)		21
B.1	Principle	21
B.2	Equipment	22
B.3	Specimen preparation	23
B.3.1	Dimensions	23
B.3.2	Sample manufacture	23
B.4	Procedure	24
Annex C (normative) Test applying indirect tension to cylindrical specimens (IT-CY)		25
C.1	Principle	25
C.2	Equipment	25
C.2.1	General devices	25
C.2.2	Test equipment	25
C.3	Specimen preparation	30
C.4	Mode of operation	31
C.4.1	Mounting the specimen	31
C.4.2	Stiffness measurement	31
Annex D (normative) Direct tension-compression test on cylindrical specimens (DTC-CY)		33
D.1	Principle	33
D.2	Equipment	33
D.3	Specimen preparation	33
D.4	Mode of operation	35
D.4.1	Stabilizing the specimen	35
D.4.2	Procedure	35
Annex E (normative) Test applying direct tension to cylindrical specimens (DT-CY) or to prismatic specimens (DT-PR)		36
E.1	Principle	36
E.2	Equipment	36
E.3	Specimen preparation	36
E.3.1	Cylindrical specimen	36
E.3.2	Prismatic specimen	37
E.4	Mode of operation	37
E.4.1	Stabilization of the specimen	37
E.4.2	Procedure	38
E.5	Derivation of the master-curve - Isotherms	39
Annex F (normative) Test applying cyclic indirect tension to cylindrical specimens (CIT-CY)		40
DIN EN 12697-26:2020-03 EN 12697-26:2018 (E) F.1 Principle		40
F.2	Equipment	40
F.2.1	Test machine	40
F.2.2	Loading	40
F.2.3	Displacement	40
F.2.4	Thermostatic chamber	42
F.2.5	Recording and measuring system	42
F.2.6	Loading strips	42
F.3	Specimen preparation	42
F.3.1	Test specimen	42
F.3.2	Specimen dimensions	43

F.4	Mode of operation	43
F.4.1	Test temperature	43
F.4.2	Mounting the specimen	43
F.4.3	Procedure	43
F.4.4	Checking of specimen deterioration	44
Annex G (informative) Derivation of the master curve		45
G.1	Principle	45
G.2	Theoretical background	46
G.3	Experimental data	47
G.4	Test report	48