

Table S1. Individual test results of strain-controlled tests.**(a)** interlayer temperature: 150 °C, extraction direction: lengthwise

#	strain amplitude ε_a	stress amplitude σ_a / MPa	number of cycles N
1	0.40 %	408.1	1,144
2	0.20 %	323.0	15,118
3	0.80 %	449.8	293
4	0.20 %	301.7	37,006
5	0.80 %	458.3	381
6	0.20 %	311.5	30,223
7	0.40 %	395.5	1,311
8	0.40 %	381.7	1,499
9	0.80 %	451.1	329
10	0.16 %	282.7	231,774
11	0.18 %	296.5	95,307
12	0.17 %	297.6	122,301

(b) interlayer temperature: 150 °C, extraction direction: crosswise

#	strain amplitude ε_a	stress amplitude σ_a / MPa	number of cycles N
1	0.40 %	380.9	3,031
2	0.40 %	365.2	5,832
3	0.20 %	314.7	155,250
4	0.80 %	452.6	457
5	0.20 %	308.5	111,889
6	0.80 %	451.9	958
7	0.40 %	389.2	3,223
8	0.80 %	447.3	466
9	0.20 %	333.3	16,325
10	0.16 %	291.7	352,019
11	0.18 %	309.9	189,893
12	0.17 %	306.6	242,518
13	0.20 %	323.0	57,100

(c) interlayer temperature: 300 °C, extraction direction: lengthwise

#	strain amplitude ε_a	stress amplitude σ_a / MPa	number of cycles N
1	0.40 %	369.2	2,868
2	0.80 %	401.0	382
3	0.20 %	295.2	24,155
4	0.40 %	356.9	1,693
5	0.20 %	299.6	19,500
6	0.16 %	264.5	58,333
7	0.14 %	248.4	346,297
8	0.80 %	420.0	367
9	0.20 %	300.8	20,550
10	0.40 %	356.3	1,294
11	0.80 %	432.5	340
12	0.15 %	261.5	133,489

Table S1. ...continued.**(d)** interlayer temperature: 300 °C, extraction direction: crosswise

#	<i>strain amplitude</i>	<i>stress amplitude</i>	<i>number of cycles</i>
	ε_a	σ_a / MPa	N
1	0.40 %	377.2	1,337
2	0.20 %	301.1	26,300
3	0.80 %	441.9	300
4	0.80 %	444.2	396
5	0.20 %	311.1	19,848
6	0.40 %	372.7	1,635
7	0.80 %	439.5	338
8	0.40 %	371.3	1,246
9	0.20 %	302.3	34,741
10	0.16 %	272.4	183,485
11	0.18 %	288.4	129,497
12	0.17 %	302.7	22,100
13	0.40 %	392.4	599

σ_a in MPa						no. of cycles N
test no. i	225.0	238.2	252.3	267.2	282.9	
1					o	5000047
2						266164
3					x	653581
4				x		1237592
5			x			560149
6		x				4284571
7	o					5000039
8		o				5000035
9			x			1771220
10		o				5000058
11			o			5000033
12				x		550778
13			o			5000049
14				x		1177629
15			x			279174
(+1)	+					(0)

load level i	0	1	2	3	4	5
f_i	1	4	5	3	2	1
$i \cdot f_i$	0	4	10	9	8	5
$i^2 \cdot f_i$	0	4	20	27	32	25

$F_T =$	16
$A_T =$	36
$B_T =$	108

(a) interlayer temp.: 150 °C, extraction dir.: lengthwise

(b) interlayer temp.: 150 °C, extraction dir.: crosswise

σ_a in MPa						no. of cycles N
test no. i	225.0	238.2	252.3	267.2	282.9	
1					o	5000000
2						134917
3					x	218635
4				x		1838737
5			o			5000000
6				x		413418
7			o			5000000
8				x		387892
9		x				1533801
10	o					5000000
11		o				5000000
12				x		371185
13			o			5000000
14				x		671664
15			o			5000000
(+1)				+		(0)

load level i	0	1	2	3	4
f_i	1	6	6	2	1
$i \cdot f_i$	0	6	12	6	4
$i^2 \cdot f_i$	0	6	24	18	16

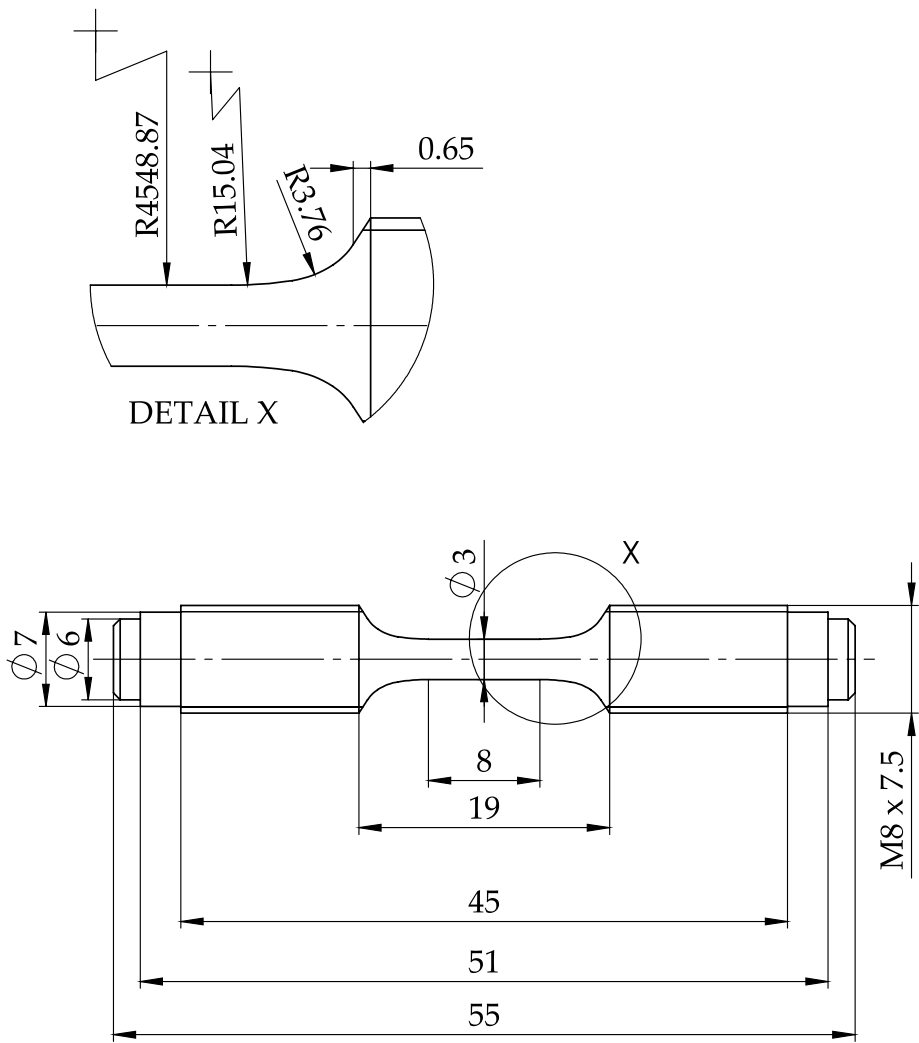
$F_T =$	16
$A_T =$	28
$B_T =$	64

(c) interlayer temp.: 300 °C, extraction dir.: lengthwise

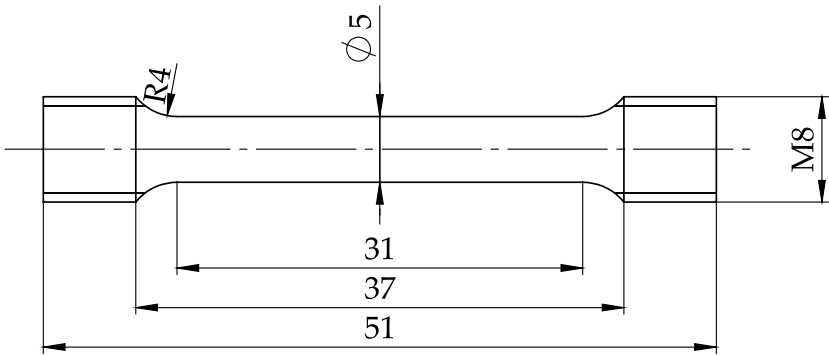
(d) interlayer temp.: 300 °C, extraction dir.: crosswise

n	not evaluated	o	runout
x	failure	+	fictitious test result

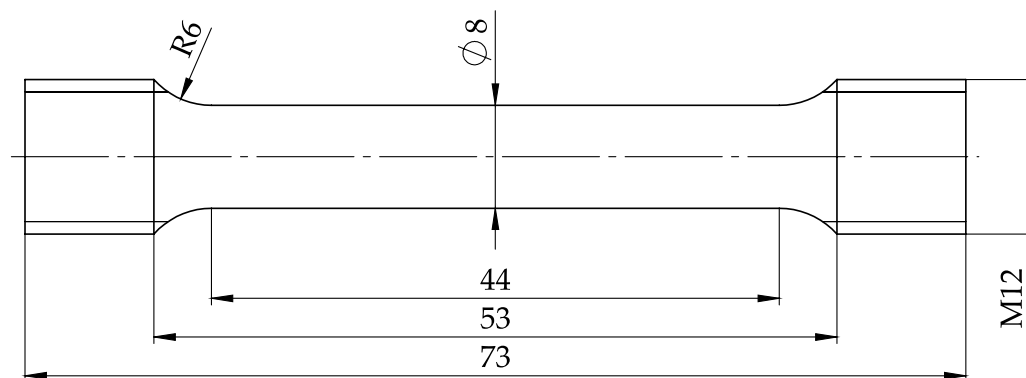
Figure S2. Test schemes for stress-controlled staircase tests according to DIN 50100.



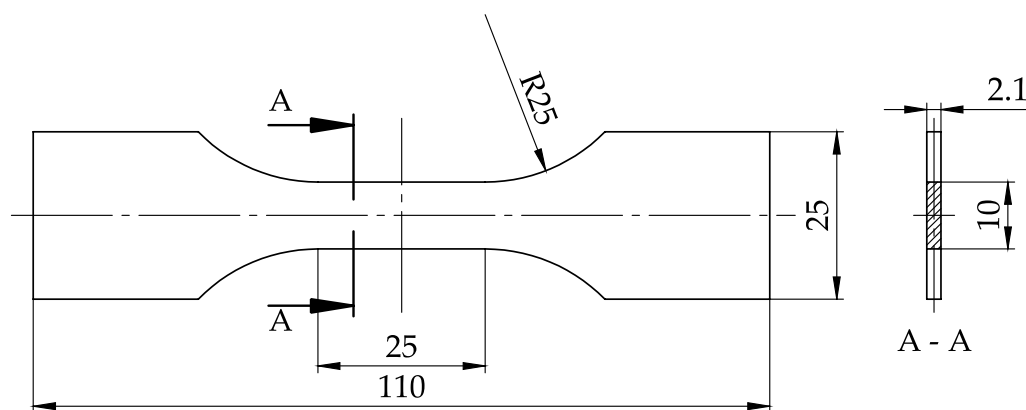
Drawing 1. Technical drawing of specimen for fatigue tests, measurements in mm.



Drawing 2. Technical drawing of specimen for monotonic tensile tests at room temperature, measurements in mm.



Drawing 3. Technical drawing of specimen for monotonic tensile tests at elevated temperatures, measurements in mm.



Drawing 4. Technical drawing of specimen for strain measurements with digital image correlation, measurements in mm.