
**Wrought aluminium and aluminium
alloys — Extruded rods/bars, tubes and
profiles —**

**Part 2:
Mechanical properties**

*Aluminium et alliages d'aluminium corroyés — Barres, tubes et
profilés filés —*

Partie 2: Caractéristiques mécaniques

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 6362-2 was prepared by Technical Committee ISO/TC 79, *Light metals and their alloys*, Subcommittee SC 6, *Wrought aluminium and aluminium alloys*.

This third edition cancels and replaces the second edition (ISO 6362-2:1990), which has been technically revised.

ISO 6362 consists of the following parts, under the general title *Wrought aluminium and aluminium alloys — Extruded rods/bars, tubes and profiles*:

- Part 1: *Technical conditions for inspection and delivery*
- Part 2: *Mechanical properties*
- Part 3: *Extruded rectangular bars — Tolerances on shape and dimensions*
- Part 4: *Profiles — Tolerances on shape and dimensions*
- Part 5: *Round, square and hexagonal bars — Tolerances on shape and dimensions*
- Part 6: *Round, square, rectangular and hexagonal tubes — Tolerances on shape and dimensions*
- Part 7: *Chemical composition*

Wrought aluminium and aluminium alloys — Extruded rods/ bars, tubes and profiles —

Part 2: Mechanical properties

1 Scope

This part of ISO 6362 specifies the mechanical properties of wrought aluminium and aluminium alloy extruded rods/bars, tubes and profiles for general engineering applications.

It applies to extruded products.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 6362-1, *Wrought aluminium and aluminium alloys — Extruded rods/bars, tubes and profiles — Part 1: Technical conditions for inspection and delivery*

ISO 6892-1, *Metallic materials — Tensile testing — Part 1: Method of test at room temperature*

ASTM B557M, *Standard Test Methods for Tension Testing Wrought and Cast Aluminum- and Magnesium-Alloy Products*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 6362-1 apply.

4 Tensile testing

For the selection of the specimens and tensile testing, see ISO 6892-1 or ASTM B557M.

5 Mechanical properties

Values for mechanical properties of aluminium and aluminium alloys are given in Tables 1 to 3.

For elongation two different gauge lengths are used. The choice of the gauge length for elongation measurements (A or $A_{50\text{mm}}$) is at the discretion of the producer, unless otherwise agreed.

NOTE A is the percentage elongation on a gauge length of $5,65\sqrt{S_0}$. $A_{50\text{mm}}$ is the percentage elongation on a gauge length of 50 mm.

Test results shall be rounded in accordance with the rules given in Annex A.

Table 1 — Mechanical properties of rods/bars

Alloy	Temper	Dimensions ^a	Tensile strength <i>R_m</i> MPa		0,2 % proof stress <i>R_{p0,2}</i> MPa		Elongation min.		
			min.	max.	min.	max.	<i>A</i> %	<i>A</i> _{50mm} %	
1070	H112	All	55	-	15	-	-	-	
1070A	H112	All	60	-	20	-	25	23	
1060	H112	3 ≤ <i>D</i> or <i>S</i> ≤ 30	60	-	30	-	-	25	
1050	H112	All	65	-	20	-	-	-	
1050A	H112	<i>D</i> < 35 or <i>S</i> < 30	65	-	20	-	25	23	
	O H111	All	60	95	20	-	25	23	
1350 ^b	H112	All	60	-	-	-	25	23	
1100	H112	<i>D</i> < 35 or <i>S</i> < 30	75	-	20	-	18	18	
		35 ≤ <i>D</i> or 30 ≤ <i>S</i>	75	-	20	-	-	-	
1200	H112	<i>D</i> < 35 or <i>S</i> < 30	75	-	25	-	20	18	
		35 ≤ <i>D</i> or 30 ≤ <i>S</i>	75	-	20	-	-	-	
2007	T4	<i>D</i> or <i>S</i> ≤ 80	370	-	250	-	8	6	
	T4510	80 < <i>D</i> or <i>S</i> ≤ 200	340	-	220	-	8	-	
	T4511	200 < <i>D</i> or <i>S</i> ≤ 250	330	-	210	-	7	-	
2011	T3	3 ≤ <i>D</i> or <i>S</i> ≤ 40	310	-	260	-	10	10	
		40 < <i>D</i> or <i>S</i> ≤ 50	295	-	235	-	10	12	
		50 < <i>D</i> or <i>S</i> ≤ 75	290	-	205	-	10	14	
	T4	3 ≤ <i>D</i> or <i>S</i> ≤ 200	275	-	125	-	14	16	
	T6	3 < <i>D</i> or <i>S</i> ≤ 75	310	-	230	-	8	10	
75 < <i>D</i> or <i>S</i> ≤ 160		295	-	195	-	6	8		
T8	3 ≤ <i>D</i> or <i>S</i> ≤ 75	370	-	275	-	10	10		
2011A	T4	<i>D</i> ≤ 200, <i>S</i> ≤ 60	275	-	125	-	14	12	
	T6	<i>D</i> ≤ 75, <i>S</i> ≤ 60	310	-	230	-	8	6	
		75 < <i>D</i> ≤ 200	295	-	195	-	6	-	
2014	O ^c	All	-	250	-	135	10	12	
	T4	All	345	-	240	-	10	12	
	T4510								
	T4511								
	T42 ^d	All	345	-	205	-	-	12	
	T6	T6510 T6511	<i>D</i> or <i>S</i> ≤ 12	410	-	365	-	-	7
			12 < <i>D</i> or <i>S</i> ≤ 19	440	-	400	-	6	7
			19 < <i>D</i> or <i>S</i> , <i>A</i> ≤ 16 000	470	-	410	-	6	7
			19 < <i>D</i> or <i>S</i> , 16 000 < <i>A</i> ≤ 20 000	470	-	400	-	6	6
			19 < <i>D</i> or <i>S</i> , 20 000 < <i>A</i> ≤ 25 000	450	-	380	-	6	6
19 < <i>D</i> or <i>S</i> , 25 000 < <i>A</i> ≤ 30 000			430	-	365	-	6	6	
T62 ^e		<i>D</i> or <i>S</i> ≤ 19	410	-	365	-	-	7	
		19 < <i>D</i> or <i>S</i> , <i>A</i> ≤ 16 000	410	-	365	-	-	7	
		19 < <i>D</i> or <i>S</i> , 16 000 < <i>A</i> ≤ 20 000	410	-	365	-	-	6	

Table 1 (continued)

Alloy	Temper	Dimensions ^a	Tensile strength R_m MPa		0,2 % proof stress $R_{p0,2}$ MPa		Elongation min.	
			min.	max.	min.	max.	A %	A_{50mm} %
2014A	O	$10 < D$ or $S \leq 200$	-	250	-	135	10	12
	T4, T4510 T4511	$10 < D$ or $S \leq 200$	345	-	240	-	10	12
	T6	$12,5 < D$ or $S \leq 100$	440	-	400	-	6	-
	T6510	$100 < D$ or $S \leq 120$	430	-	350	-	6	-
	T6511	$120 < D$ or $S \leq 200$	430	-	350	-	6	-
2017	O ^c	All	-	245	-	125	-	16
	T4 T42 ^d	$A \leq 70\ 000$ $70\ 000 < A \leq 100\ 000$	345 345	-	215 195	-	-	12 12
2017A	O	$10 < D$ or $S \leq 100$	-	250	-	150	10	-
	T4 T4510 T4511	$10 < D$ or $S \leq 80$ $80 < D$ or $S \leq 200$	390 360	-	265 220	-	10 7	- -
	O ^c	All	-	245	-	125	10	12
2024	T3510 T3511	D or $S \leq 6$	390	-	295	-	-	12
		$6 < D$ or $S \leq 19$	410	-	300	-	10	12
		$19 < D$ or $S \leq 38$	450	-	310	-	8	10
		$38 < D$ or S , $A \leq 16\ 000$	480	-	365	-	7	10
		$38 < D$ or S , $16\ 000 < A \leq 20\ 000$	470	-	335	-	7	8
	T3 T4	D or $S \leq 6$	390	-	295	-	-	12
		$6 < D$ or $S \leq 19$	410	-	305	-	-	12
		$19 < D$ or $S \leq 38$	450	-	315	-	-	10
		$38 < D$ or S , $A \leq 16\ 000$	480	-	365	-	8	10
		$38 < D$ or $S \leq 100$, $16\ 000 < A \leq 20\ 000$	470	-	335	-	8	8
		$38 < D$ or $S \leq 100$, $20\ 000 < A \leq 30\ 000$	460	-	315	-	8	8
		$100 < D$ or $S \leq 200$, $A \leq 16\ 000$	480	-	365	-	6	10
	$100 < D$ or $S \leq 200$, $16\ 000 < A \leq 20\ 000$	470	-	335	-	6	8	
	$100 < D$ or $S \leq 200$, $20\ 000 < A \leq 30\ 000$	460	-	315	-	6	8	
	T42 ^d	D or $S \leq 19$	390	-	265	-	-	12
		$19 < D$ or $S \leq 38$	390	-	265	-	-	10
		$38 < D$ or S , $A \leq 16\ 000$	390	-	265	-	-	10
$38 < D$ or S , $16\ 000 < A \leq 20\ 000$		390	-	265	-	-	8	
T8510 T8511 T81	$10 < D$ or $S \leq 150$	455	-	400	-	4	-	

Table 1 (continued)

Alloy	Temper	Dimensions ^a	Tensile strength R_m MPa		0,2 % proof stress $R_{p0,2}$ MPa		Elongation min.	
			min.	max.	min.	max.	A %	A_{50mm} %
2030	T4	D or $S \leq 80$	370	-	250	-	8	6
	T4510	$80 < D$ or $S \leq 200$	340	-	220	-	8	-
	T4511	$200 < D$ or $S \leq 250$	330	-	210	-	7	-
3102	H112	All	80	-	30	-	25	23
3003	H112	All	95	-	35	-	-	-
	O H111	All	95	135	35	-	25	20
3103	H112	All	95	-	35	-	25	20
	O H111	All	95	135	35	-	25	20
5005 5005A	H112	All	100	-	40	-	18	16
	O H111	$D \leq 80, S \leq 60$	100	150	40	-	18	16
5019	H112	D or $S \leq 200$	250	-	110	-	14	12
	O H111	D or $S \leq 200$	250	320	110	-	15	13
5049	H112	All	180	-	80	-	15	13
5051A	H112	All	150	-	50	-	16	14
	O H111	All	150	200	50	-	18	16
5251	H112	All	160	-	60	-	16	14
	O H111	All	160	220	60	-	17	15
5052	H112	All	175	-	70	-	-	-
	O	All	175	245	70	-	-	20
5154A	H112	D or $S \leq 200$	200	-	85	-	16	14
	O H111	D or $S \leq 200$	200	275	85	-	18	16
5454	H112	All	215	-	100	-	-	12
	O H111	D or $S \leq 200$	200	275	85	-	18	16
5754	H112	D or $S \leq 150$ $150 < D$ or $S \leq 250$	180 180	- -	80 70	- -	14 13	12 -
	O H111	D or $S \leq 150$	180	250	80	-	17	15
5056	H112	$A \leq 30\ 000$	245	-	100	-	-	-
		$30\ 000 < A \leq 70\ 000$	225	-	80	-	-	-
		$70\ 000 < A \leq 100\ 000$	215	-	70	-	-	-

Table 1 (continued)

Alloy	Temper	Dimensions ^a	Tensile strength R_m MPa		0,2 % proof stress $R_{p0,2}$ MPa		Elongation min.	
			min.	max.	min.	max.	A %	A_{50mm} %
5083	H112	D or $S \leq 130$, $A \leq 20\ 000$	275	-	140	-	12	12
	O	D or $S \leq 130$, $A \leq 20\ 000$	275	355	110	-	-	14
5086	H112	D or $S \leq 250$	240	-	95	-	12	10
	O	D or $S \leq 200$	240	320	95	-	18	15
6101	T6 ^f	$3 \leq D$ or $S \leq 7$	195	-	165	-	-	10
		$7 < D$ or $S \leq 17$	195	-	165	-	-	12
		$17 < D$ or $S \leq 30$	175	-	145	-	-	14
	T7	$3 \leq D$ or $S \leq 17$	135	-	110	-	-	10
6101A	T6 ^f	D or $S \leq 150$	200	-	170	-	10	8
6101B	T6 ^{f,g}	$S \leq 15$	215	-	160	-	8	6
	T7 ^{f,h}	$S \leq 15$	170	-	120	-	12	10
6005 6005A	T6 ^f	D or $S \leq 25$	270	-	225	-	10	8
		$25 < D$ or $S \leq 50$	270	-	225	-	8	-
		$50 < D$ or $S \leq 100$	260	-	215	-	8	-
6005C	T5	D or $S \leq 6$	245	-	205	-	-	8
		$6 < D$ or $S \leq 12$	225	-	175	-	-	8
	T6 ^f	D or $S \leq 6$	265	-	235	-	-	8
6110A	T5 ^f	D or $S \leq 120$	380	-	360	-	10	8
	T6 ^f	$D \leq 120$ or $S \leq 150$	410	-	380	-	10	8
6012	T6 ^f	D or $S \leq 150$	310	-	260	-	8	6
	T6510 ^f	$150 < D$ or $S \leq 200$	260	-	200	-	8	-
	T6511 ^f							
6018	T6 ^f T6510 ^f T6511 ^f	D or $S \leq 150$	310	-	260	-	8	6
		$150 < D$ or $S \leq 200$	260	-	200	-	8	-
6023	T6 ^f T6510 ^f T6511 ^f	D or $S \leq 150$	320	-	270	-	10	8
6351	O	D or $S \leq 200$	-	160	-	110	14	12
	H111							
	T4 ^f	D or $S \leq 200$	205	-	110	-	14	12
	T6 ^f	D or $S \leq 20$	295	-	250	-	8	6
		$20 < D$ or $S \leq 75$	300	-	255	-	8	-
		$75 < D$ or $S \leq 150$	310	-	260	-	8	-
$150 < D$ or $S \leq 200$		280	-	240	-	6	-	
		$200 < D$ or $S \leq 250$	270	-	200	-	6	-

Table 1 (continued)

Alloy	Temper	Dimensions ^a	Tensile strength <i>R_m</i> MPa		0,2 % proof stress <i>R_{p0,2}</i> MPa		Elongation min.	
			min.	max.	min.	max.	<i>A</i> %	<i>A</i> _{50mm} %
6060	T4 ^f	D or $S \leq 150$	120	-	60	-	16	14
	T5	D or $S \leq 150$	160	-	120	-	8	6
	T6 ^f	D or $S \leq 100$	190	-	150	-	10	8
	T64 ^f	D or $S \leq 50$	180	-	120	-	12	10
	T66 ^f	D or $S \leq 150$	215	-	160	-	8	6
6360	T4 ^f	D or $S \leq 150$	110	-	50	-	16	14
	T5	D or $S \leq 150$	150	-	110	-	8	6
	T6 ^f	D or $S \leq 150$	185	-	140	-	8	6
	T66 ^f	D or $S \leq 150$	195	-	150	-	8	6
6061	O ^c	All	-	145	-	110	-	16
	T4 ^f T4511	All	180	-	110	-	14	16
	T42 ^d	All	175	-	85	-	-	16
	T6 ^f T62 ^e T6511	D or $S \leq 6$ $6 < D$ or S	260 260	- -	240 240	- -	7 9	8 10
	6261	O H111	D or $S \leq 100$	-	170	-	120	14
T4 ^f		D or $S \leq 100$	180	-	100	-	14	12
T6 ^f		D or $S \leq 20$ $20 < D$ or $S \leq 100$	290 290	- -	245 245	- -	8 8	7 -
6262	T6 ^f	D or $S \leq 200$	260	-	240	-	10	8
6262A	T6 ^f	$D \leq 220$ or $S \leq 155$	260	-	240	-	10	8
6063	O H111	D or $S \leq 200$	-	130	-	-	18	16
	T1	D or $S \leq 12$	120	-	60	-	-	12
		$12 < D$ or $S \leq 25$	110	-	55	-	-	12
	T4 ^f	D or $S \leq 150$	130	-	65	-	14	12
		$150 < D$ or $S \leq 200$	120	-	65	-	12	-
	T5	D or $S \leq 12$	150	-	110	-	7	8
		$12 < D$ or $S \leq 25$	145	-	105	-	7	8
T6 ^f	D or $S \leq 3$	205	-	170	-	-	8	
	$3 < D$ or $S \leq 25$	205	-	170	-	9	10	
T66 ^f	D or $S \leq 200$	245	-	200	-	10	8	

Table 1 (continued)

Alloy	Temper	Dimensions ^a	Tensile strength R_m MPa		0,2 % proof stress $R_{p0,2}$ MPa		Elongation min.	
			min.	max.	min.	max.	A %	A_{50mm} %
6063A	O H111	D or $S \leq 200$	-	150	-	-	16	14
	T4 ^f	D or $S \leq 150$	150	-	90	-	12	10
		$150 < D$ or $S \leq 200$	140	-	90	-	10	-
	T6 ^f	D or $S \leq 200$	200	-	160	-	7	5
D or $S \leq 150$ $150 < D$ or $S \leq 200$		230 220	- -	190 160	- -	7 7	5 -	
6463	T4 ^f	D or $S \leq 150$	125	-	75	-	14	12
	T5	D or $S \leq 150$	150	-	110	-	8	6
	T6 ^f	D or $S \leq 150$	195	-	160	-	10	8
6065	T6 ^f	$D \leq 220$ or $S \leq 155$	260	-	240	-	10	8
6081	T6 ^f	D or $S \leq 250$	275	-	240	-	8	6
6082	O H111	D or $S \leq 200$	-	160	-	110	14	12
	T4 ^f	$10 \leq D$ or $S \leq 80$	205	-	110	-	14	14
	T6 ^f	$10 \leq D \leq 60$ or $10 \leq S \leq 50$ $60 < D \leq 150$ or $50 < S \leq 150$	310 300	- -	260 240	- -	8 8	7 -
6182		T4 ^f	$D \leq 220$ or $S \leq 155$	205	-	110	-	12
	T6 ^{f,i}	$9 < D$ or $S \leq 100$	360	-	330	-	9	7
		$100 < D$ or $S \leq 150$ $150 < D$ or $S \leq 220$	330 280	- -	300 240	- -	8 6	6 4
7003	T5	D or $S \leq 12$	285	-	245	-	-	10
		$12 < D$ or $S \leq 25$	275	-	235	-	-	10
	T6 ^f	D or $S \leq 50$	350	-	290	-	10	8
$50 < D$ or $S \leq 150$		340	-	280	-	10	8	
7204	O	All	-	245	-	145	-	12
	T4	All	315	-	195	-	-	11
	T6	All	335	-	275	-	-	-
7005	T6 ^f	D or $S \leq 50$	350	-	290	-	10	8
		$50 < D$ or $S \leq 200$	340	-	270	-	10	-
7108	T6 ^f	D or $S \leq 100$	310	-	260	-	10	8
7108A	T6 ^f	D or $S \leq 200$	310	-	260	-	12	10
	T66 ^f	D or $S \leq 50$	350	-	290	-	10	8
$50 < D$ or $S \leq 200$		340	-	275	-	10	-	
7020	T6 ^f	D or $S \leq 50$	350	-	290	-	10	8
		$50 < D$ or $S \leq 200$	340	-	275	-	10	-
7021	T6 ^f	D or $S \leq 40$	410	-	350	-	10	8

Table 1 (continued)

Alloy	Temper	Dimensions ^a	Tensile strength <i>R_m</i> MPa		0,2 % proof stress <i>R_{p0,2}</i> MPa		Elongation min.	
			min.	max.	min.	max.	<i>A</i> %	<i>A</i> _{50mm} %
7022	T6 ^f	D or $S \leq 80$	490	-	420	-	7	5
	T6510 ^f	$80 < D$ or $S \leq 200$	470	-	400	-	7	-
	T6511 ^f							
7049A	T6	D or $S \leq 100$	610	-	530	-	5	4
	T6510	$100 < D$ or $S \leq 125$	560	-	500	-	5	-
	T6511	$125 < D$ or $S \leq 150$	520	-	430	-	5	-
		$150 < D$ or $S \leq 180$	450	-	400	-	3	-
7050	T73511	D or $S \leq 125$, $A \leq 20\ 000$	485	-	415	-	7	8
	T74511	D or $S \leq 76$	505	-	435	-	-	7
	T76510	D or $S \leq 127$	545	-	475	-	-	7
7075	O ^c	$A \leq 20\ 000$	-	275	-	165	9	10
	T6, T62 ^e T6510 T6511	D or $S \leq 6$	540	-	480	-	-	7
		$6 \leq D$ or $S \leq 75$	560	-	500	-	6	7
		$75 < D$ or $S \leq 110$, $A \leq 13\ 000$	560	-	490	-	5	7
		$75 < D$ or $S \leq 110$, $13\ 000 < A \leq 20\ 000$	540	-	480	-	5	7
		$110 < D$ or $S \leq 130$, $A \leq 13\ 000$	540	-	470	-	5	6
	T73 ^k	$130 < D$ or $S \leq 150$	500	-	440	-	5	-
		$10 < D$ or $S \leq 25$	485	-	420	-	7	-
		$25 < D$ or $S \leq 50$	475	-	405	-	7	-
		$50 < D$ or $S \leq 70$	475	-	405	-	7	-
	T73510 ^k T73511 ^k	$70 < D$ or $S \leq 100$	470	-	390	-	6	-
D or $S \leq 25$		485	-	420	-	7	5	
$25 < D$ or $S \leq 75$		475	-	405	-	7	-	
$75 < D$ or $S \leq 100$		470	-	390	-	6	-	
		$100 < D$ or $S \leq 150$	440	-	360	-	6	-

Table 1 (continued)

Alloy	Temper	Dimensions ^a	Tensile strength		0,2 % proof stress		Elongation min.	
			R_m MPa		$R_{p0,2}$ MPa		A %	A_{50mm} %
			min.	max.	min.	max.		
<p>^a D (mm) = Diameter for round bar. S (mm) = Width across flats for square and hexagonal bar, thickness for rectangular bar. A (mm²) = Cross-section area.</p> <p>^b Electrical conductivity $\gamma \geq 35,4$ MS/m.</p> <p>^c The material of temper grade O shall be a basis for materials of temper grades T42 or T62. When requested by the purchaser, the capability to achieve T42 or T62 properties after appropriate heat treatment is demonstrated.</p> <p>^d The mechanical properties of temper grade T42 shall be applied only when the material of temper grade O has been naturally age-hardened after solution treatment by the purchaser. If the material is cold or hot worked prior to solution treatment by the purchaser, its mechanical properties may be lower than the specified values.</p> <p>^e The mechanical properties of temper grade T62 shall be applied only when the material of temper grade O has been artificially age-hardened after solution treatment by the purchaser. If the material is cold or hot worked prior to solution treatment by the purchaser, its mechanical properties may be lower than the specified values.</p> <p>^f Applicable for those after extrusion followed by controlled cooling at a rate rapid enough to hold constituents in solution.</p> <p>^g Electrical conductivity $\gamma \geq 30$ MS/m.</p> <p>^h Electrical conductivity $\gamma \geq 32$ MS/m.</p> <p>ⁱ Properties obtained by the user, however, may be lower than those listed if the material has been formed or otherwise cold or hot worked, particularly in the annealed temper, prior to normal solution heat treatment.</p> <p>^j The mechanical properties of temper grade T4 are the values specified, based on reference values obtained by 1 month of natural ageing at room temperature (approximately 20 °C) after solution treatment.</p> <p>In the case of the tensile test made before completion of 1 month of natural ageing, the tensile performance of temper grade T4 may be deemed as guaranteed if the test result of the test piece which has been artificially aged after solution treatment is confirmed to satisfy the tensile performance of temper grade T6.</p> <p>^k For materials of thickness 20 mm or above, see EN 755-1, with respect to stress corrosion cracking resistance.</p>								

Table 2 — Mechanical properties of tubes

Alloy	Temper	Dimensions ^a	Tensile strength		0,2 % proof stress		Elongation min.	
			R_m MPa		$R_{p0,2}$ MPa		A %	A_{50mm} %
			min.	max.	min.	max.		
1070	H112	All	55	-	15	-	-	-
1050	H112	All	65	-	20	-	-	-
1050A	H112	All	60	-	20	-	25	23
	O,H111	All	60	95	20	-	25	23
1350	H112	All	60	-	-	-	25	23
1100, 1200	H112	All	75	-	20	-	-	25
2007	T4							
	T4510 T4511	$t \leq 25$	370	-	250	-	8	6
2011, 2011A	T6	$t \leq 25$	310	-	230	-	6	4

Table 2 (continued)

Alloy	Temper	Dimensions ^a	Tensile strength R_m MPa		0,2 % proof stress $R_{p0,2}$ MPa		Elongation min.	
			min.	max.	min.	max.	A %	A_{50mm} %
2014	O ^b	All	-	245	-	125	-	12
	T4	All	345	-	245	-	-	12
	T42 ^c	All	345	-	205	-	-	12
	T4510 T4511	$t \leq 20$	370	-	230	-	11	10
	T6	$t \leq 12$	410	-	365	-	-	7
		$12 < t \leq 19$	440	-	400	-	-	7
		$19 < t, A \leq 16\ 000$	470	-	410	-	-	7
		$19 < t, 16\ 000 < A \leq 20\ 000$	470	-	400	-	-	6
		$19 < t, 20\ 000 < A \leq 25\ 000$	450	-	380	-	-	6
	T62 ^d	$t \leq 19$	410	-	365	-	-	7
$19 < t, A \leq 16\ 000$		410	-	365	-	-	7	
$19 < t, 16\ 000 < A \leq 20\ 000$		410	-	365	-	-	6	
T6510 T6511	$t \leq 10$	415	-	370	-	7	5	
	$10 < t \leq 40$	450	-	400	-	6	4	
2014A	O H111	$t \leq 20$	-	250	-	135	12	10
	T4 T4510 T4511	$t \leq 20$	370	-	230	-	11	10
	T6 T6510	$t \leq 10$	415	-	370	-	7	5
	T6511	$10 < t \leq 40$	450	-	400	-	6	4
2017	O ^b	All	-	245	-	125	-	16
	T4	$A \leq 70\ 000$	345	-	215	-	-	12
	T42 ^c	$70\ 000 < A \leq 100\ 000$	335	-	195	-	-	12
2017A	O H111	$t \leq 20$	-	250	-	135	12	10
	T4 T4510	$t \leq 10$	380	-	260	-	12	10
	T4511	$10 < t \leq 75$	400	-	270	-	10	8

Table 2 (continued)

Alloy	Temper	Dimensions ^a	Tensile strength R_m MPa		0,2 % proof stress $R_{p0,2}$ MPa		Elongation min.	
			min.	max.	min.	max.	A %	A_{50mm} %
2024	O ^b	All	-	245	-	125	-	12
	T3 T3510 T3511	$t \leq 30$	420	-	290	-	8	6
	T4	$t \leq 6$	390	-	295	-	-	10
		$6 < t \leq 19$	410	-	305	-	-	10
		$19 < t \leq 38$	450	-	315	-	-	10
		$38 < t, A \leq 16\ 000$	480	-	335	-	-	10
		$38 < t, 16\ 000 < A \leq 20\ 000$	470	-	315	-	-	8
	$38 < t, 20\ 000 < A \leq 30\ 000$	460	-	315	-	-	8	
	T42 ^c	$t \leq 19$	390	-	265	-	-	12
		$19 < t \leq 38$	390	-	265	-	-	10
$38 < t, A \leq 16\ 000$		390	-	265	-	-	10	
$38 < t, 16\ 000 < A \leq 20\ 000$		390	-	265	-	-	8	
T8 T8510 T8511	$t \leq 30$	455	-	380	-	5	4	
2030	T4 T4510 T4511	$t \leq 25$	370	-	250	-	8	6
3102	H112	All	80	-	30	-	25	23
3003, 3203	H112	All	95	-	35	-	-	-
3103	H112	All	95	-	35	-	25	20
	O H111	All	95	135	35	-	25	20
5005, 5005A	H112	All	100	-	40	-	18	16
	O H111	$t \leq 20$	100	150	40	-	20	18
5019	H112	$t \leq 30$	250	-	110	-	14	12
	O H111	$t \leq 30$	250	320	110	-	15	13
5049	H112	All	180	-	80	-	15	13
5051A	H112	All	150	-	60	-	16	14
	O H111	All	150	200	60	-	18	16
5251	H112	All	160	-	60	-	16	14
	O H111	All	160	220	60	-	17	15

Table 2 (continued)

Alloy	Temper	Dimensions ^a	Tensile strength R_m MPa		0,2 % proof stress $R_{p0,2}$ MPa		Elongation min.	
			min.	max.	min.	max.	A %	A_{50mm} %
5052	H112	All	175	-	70	-	-	-
	O	All	175	245	70	-	-	20
5154	H112	All	205	-	75	-	-	-
	O	All	205	285	75	-	-	-
5154A	H112	$t \leq 25$	200	-	85	-	16	14
	O H111	$t \leq 25$	200	275	85	-	18	16
5454	H112	$t \leq 130, A \leq 20\ 000$	215	-	85	-	-	12
	O	$t \leq 130, A \leq 20\ 000$	215	285	85	-	-	14
5754	H112	$t \leq 25$	180	-	80	-	14	12
	O H111	$t \leq 25$	180	250	80	-	17	15
5056	H112	$A \leq 30\ 000$	245	-	100	-	-	-
		$30\ 000 < A \leq 70\ 000$	225	-	80	-	-	-
		$70\ 000 < A \leq 100\ 000$	215	-	70	-	-	-
5083	H112	$A \leq 20\ 000$	275	-	110	-	-	12
	O	$A \leq 20\ 000$	275	355	110	-	-	14
5086	H112	All	240	-	95	-	12	10
	O H111	All	240	320	95	-	18	15
6101	T6 ^e	$3 \leq t \leq 12$	195	-	165	-	-	10
		$12 < t \leq 16$	175	-	145	-	-	14
6101A	T6 ^e	$t \leq 25$	200	-	170	-	10	8
6101B	T6 ^{e,f}	$t \leq 15$	215	-	160	-	8	6
	T7 ^{e,g}	$t \leq 15$	170	-	120	-	12	10
6005, 6005A	T6 ^e	$t \leq 5$	270	-	225	-	8	6
		$5 < t \leq 10$	260	-	215	-	8	6
6005C	T5	$t \leq 6$	245	-	205	-	-	8
		$6 < t \leq 12$	225	-	175	-	-	8
		T6 ^e	$t \leq 6$	265	-	235	-	-
6008	T6 ^e	$t \leq 10$	180	-	90	-	15	13
		$t \leq 5$	270	-	225	-	8	6
		$5 < t \leq 10$	260	-	215	-	8	6
6110A	T4 ^e	$t \leq 25$	320	-	220	-	16	14
	T6 ^e	$t \leq 25$	380	-	360	-	10	8
6012	T6 ^e	$t \leq 30$	310	-	260	-	8	6
	T6510 ^e T6511 ^e							

Table 2 (continued)

Alloy	Temper	Dimensions ^a	Tensile strength R_m MPa		0,2 % proof stress $R_{p0,2}$ MPa		Elongation min.	
			min.	max.	min.	max.	A %	A_{50mm} %
6014	T4 ^e	$t \leq 10$	140	-	70	-	15	13
	T6 ^e	$t \leq 5$	250	-	200	-	8	6
		$5 < t \leq 10$	225	-	180	-	8	6
6018	T6 ^e T6510 ^e T6511 ^e	$t \leq 30$	310	-	260	-	8	6
6351	O H111	$t \leq 25$	-	160	-	110	14	12
	T4 ^e	$t \leq 25$	205	-	110	-	14	12
	T6 ^e	$t \leq 5$	290	-	250	-	8	6
$5 < t \leq 25$		300	-	255	-	10	8	
6060	T4 ^e	$t \leq 15$	120	-	60	-	16	14
	T5	$t \leq 15$	160	-	120	-	8	6
	T6 ^e	$t \leq 15$	190	-	150	-	8	6
	T64 ^e	$t \leq 15$	180	-	120	-	12	10
	T66 ^e	$t \leq 15$	215	-	160	-	8	6
6360	T4 ^e	$t \leq 15$	110	-	50	-	16	14
	T5	$t \leq 15$	150	-	120	-	8	6
	T6 ^e	$t \leq 15$	185	-	140	-	8	6
	T66 ^e	$t \leq 15$	195	-	150	-	8	6
6061	O	All	-	145	-	110	-	16
	T4 ^e	All	175	-	110	-	-	16
	T42 ^c	All	175	-	85	-	-	16
	T6 ^e	$t \leq 6$	265	-	245	-	-	8
	T62 ^d	$6 < t$	265	-	245	-	-	10
6261	O H111	$t \leq 10$	-	170	-	120	14	12
	T4 ^e	$t \leq 10$	180	-	100	-	14	12
	T5	$t \leq 5$	270	-	230	-	8	7
		$5 < t \leq 10$	260	-	220	-	9	8
	T6 ^e	$t \leq 5$	290	-	245	-	8	7
$5 < t \leq 10$		290	-	245	-	9	8	
6262	T6 ^e	$t \leq 25$	260	-	240	-	10	8

Table 2 (continued)

Alloy	Temper	Dimensions ^a	Tensile strength R_m MPa		0,2 % proof stress $R_{p0,2}$ MPa		Elongation min.	
			min.	max.	min.	max.	A %	A_{50mm} %
6063	O H111	$t \leq 25$	-	130	-	-	18	16
	T1	$t \leq 12$	120	-	60	-	-	12
		$12 < t \leq 25$	110	-	55	-	-	12
	T4 ^e	$t \leq 10$	130	-	65	-	14	12
		$10 < t \leq 25$	120	-	65	-	12	10
	T5	$t \leq 12$	155	-	110	-	-	8
		$12 < t \leq 25$	145	-	110	-	-	8
T6 ^e	$t \leq 3$	205	-	175	-	-	8	
	$3 < t \leq 25$	205	-	175	-	-	10	
T66 ^e	$t \leq 25$	245	-	200	-	10	8	
6063A	O H111	$t \leq 25$	-	150	-	-	16	14
	T4 ^e	$t \leq 10$	150	-	90	-	12	10
		$10 < t \leq 25$	140	-	90	-	10	8
	T5	$t \leq 25$	200	-	160	-	7	5
T6 ^e	$t \leq 25$	230	-	190	-	7	5	
6463	T6 ^e	$t \leq 25$	195	-	160	-	10	8
6081	T6 ^e	$t \leq 25$	275	-	240	-	8	6
6082	O H111	$t \leq 25$	-	160	-	110	14	12
	T4 ^e	$t \leq 25$	205	-	110	-	14	12
	T6 ^e	$t \leq 5$	290	-	250	-	8	6
$5 < t \leq 25$		310	-	260	-	10	8	
7003	T5	$t \leq 12$	285	-	245	-	-	10
		$12 < t \leq 25$	275	-	235	-	-	10
	T6 ^e	$t \leq 10$	350	-	290	-	10	8
		$10 < t \leq 25$	340	-	280	-	10	8
7204	T4 ^h	$1,6 \leq t \leq 12$	-	245	-	145	-	12
		$1,6 \leq t \leq 12$	315	-	195	-	-	11
	T6	$1,6 \leq t \leq 6$	325	-	235	-	-	10
$6 < t \leq 12$		335	-	255	-	-	10	
7005	T6 ^e	$t \leq 15$	350	-	290	-	10	8
7108	T6 ^e	$t \leq 20$	310	-	260	-	10	8
7108A	T6 ^e	$t \leq 20$	310	-	260	-	12	10
	T66 ^e	$t \leq 20$	350	-	290	-	10	8
7020	T6 ^e	$t \leq 15$	350	-	290	-	10	8
7021	T6 ^e	$t \leq 10$	410	-	350	-	10	8

Table 2 (continued)

Alloy	Temper	Dimensions ^a	Tensile strength R_m MPa		0,2 % proof stress $R_{p0,2}$ MPa		Elongation min.	
			min.	max.	min.	max.	A %	A_{50mm} %
7022	T6 ^e	$t \leq 30$	490	-	420	-	7	5
	T6510 ^e							
	T6511 ^e							
7049A	T6	$t \leq 30$	610	-	530	-	5	4
	T6510							
	T6511							
7050	T73511	t or $D \leq 125$, $A \leq 20\ 000$	485	-	415	-	7	8
	T74511	$t \leq 76$	505	-	435	-	-	7
	T76510	t or $D \leq 127$	545	-	475	-	-	7
7075	O ^b	All	-	275	-	165	-	10
	T6	$t \leq 6$	540	-	480	-	-	7
	T62 ^d	$6 < t \leq 75$	560	-	500	-	-	7
	T6510 T6511	$t \leq 5$	540	-	485	-	8	6
		$5 < t \leq 10$	560	-	505	-	7	5
		$10 < t \leq 50$	560	-	495	-	6	4
	T73 ⁱ	$t \leq 5$	470	-	400	-	7	5
T73510 ⁱ	$5 < t \leq 25$	485	-	420	-	8	6	
T73511 ⁱ	$25 < t \leq 50$	475	-	405	-	8	-	

^a t (mm) = Wall thickness.
 D (mm) = Outside diameter.
 A (mm²) = Cross-section area.

^b The material of temper grade O shall be a basis for materials of temper grades T42 or T62. When requested by the purchaser, the capability to achieve T42 and T62 properties after appropriate heat treatment is demonstrated.

^c The mechanical properties of temper grade T42 shall be applied only when the material of temper grade O has been naturally age-hardened after solution treatment by the purchaser. If the material is cold or hot worked prior to solution treatment by the purchaser, its mechanical properties may be lower than the specified values.

^d The mechanical properties of temper grade T62 shall be applied only when the material of temper grade O has been artificially age-hardened after solution treatment by the purchaser. If the material is cold or hot worked prior to solution treatment by the purchaser, its mechanical properties may be lower than the specified values.

^e Applicable for those after extrusion followed by controlled cooling at a rate rapid enough to hold constituents in solution.

^f Electrical conductivity $\gamma \geq 30$ MS/m.

^g Electrical conductivity $\gamma \geq 32$ MS/m.

^h The mechanical properties of temper grade T4 are the values specified, based on reference values obtained by 1 month of natural ageing at room temperature (approximately 20 °C) after solution treatment.

In the case of the tensile test made before completion of 1 month of natural ageing, the tensile performance of temper grade T4 may be deemed as guaranteed if the test result of the test piece which has been artificially aged after solution treatment is confirmed to satisfy the tensile performance of temper grade T6.

ⁱ For materials of thickness 20 mm or above, see EN 755-1, with respect to stress corrosion cracking resistance.

Table 3 — Mechanical properties of profiles

Alloy	Temper	Dimensions ^a	Tensile strength <i>R_m</i> MPa		0,2 % proof stress <i>R_{p0,2}</i> MPa		Elongation min.	
			min.	max.	min.	max.	<i>A</i> %	<i>A</i> _{50mm} %
1070	H112	All	55	-	15	-	-	-
1070A	H112	All	60	-	20	-	25	23
1060	H112	3 ≤ <i>t</i> ≤ 30	60	-	30	-	-	25
1050	H112	All	65	-	20	-	-	-
1050A	H112	All	60	-	20	-	25	23
1350 ^b	H112	All	60	-	-	-	25	23
1100, 1200	H112	All	75	-	20	-	-	-
2007	T4	<i>t</i> ≤ 30	370	-	250	-	8	6
	T4510							
	T4511							
2014 ^c	O ^d	All	-	245	-	125	-	12
	T4	All	345	-	245	-	-	12
	T42 ^e	All	345	-	205	-	-	12
	T4510 T4511	<i>t</i> ≤ 25	370	-	230	-	11	10
		25 < <i>t</i> ≤ 75	410	-	270	-	10	-
	T6	<i>t</i> ≤ 15	415	-	365	-	6	7
		15 < <i>t</i> ≤ 30	440	-	400	-	6	7
		30 < <i>t</i> , <i>A</i> ≤ 16 000	470	-	410	-	5	7
		30 < <i>t</i> , 16 000 < <i>A</i> ≤ 20 000	470	-	400	-	5	6
		30 < <i>t</i> , 20 000 < <i>A</i> ≤ 25 000	450	-	380	-	-	6
		30 < <i>t</i> , 25 000 < <i>A</i> ≤ 30 000	430	-	365	-	-	6
	T62 ^f	<i>t</i> ≤ 19	410	-	365	-	-	7
		19 < <i>t</i> , <i>A</i> ≤ 16 000	410	-	365	-	-	7
19 < <i>t</i> , 16 000 < <i>A</i> ≤ 20 000		410	-	365	-	-	6	
T6510 T6511	<i>t</i> ≤ 25	415	-	370	-	7	5	
	25 < <i>t</i> ≤ 75	460	-	415	-	7	-	
2014A ^c	O H111	All	-	250	-	135	12	10
	T4 T4510 T4511	<i>t</i> ≤ 25	370	-	230	-	11	10
		25 < <i>t</i> ≤ 75	410	-	270	-	10	-
	T6 T6510 T6511	<i>t</i> ≤ 25	415	-	370	-	7	5
		25 < <i>t</i> ≤ 75	460	-	415	-	7	-
2017	O ^d	All	-	245	-	125	-	16
	T4	<i>A</i> ≤ 70 000	345	-	215	-	-	12
	T42 ^e	70 000 < <i>A</i> ≤ 100 000	335	-	195	-	-	12

Table 3 (continued)

Alloy	Temper	Dimensions ^a	Tensile strength R_m MPa		0,2 % proof stress $R_{p0,2}$ MPa		Elongation min.	
			min.	max.	min.	max.	A %	A_{50mm} %
2017A	T4							
	T4510	$t \leq 30$	380	-	260	-	10	8
	T4511							
2024 ^c	O ^d	All	-	245	-	125	-	12
	T3	$t \leq 5$	395	-	290	-	-	12
		$5 < t \leq 15$	395	-	290	-	-	12
		$15 < t \leq 30$	415	-	305	-	9	-
	T3510	$t \leq 15$	395	-	290	-	8	6
	T3511	$15 < t \leq 50$	420	-	290	-	8	-
	T4	$t \leq 6$	390	-	295	-	-	12
		$6 < t \leq 19$	410	-	305	-	-	12
		$19 < t \leq 38$	450	-	315	-	-	10
		$38 < t, A \leq 16\ 000$	480	-	365	-	-	10
		$38 < t, 16\ 000 < A \leq 20\ 000$	470	-	335	-	-	8
		$38 < t, 20\ 000 < A \leq 30\ 000$	460	-	315	-	-	8
	T42 ^e	$t \leq 19$	390	-	265	-	-	12
$19 < t \leq 38$		390	-	265	-	-	10	
$38 < t, A \leq 16\ 000$		390	-	265	-	-	10	
$38 < t, 16\ 000 < A \leq 20\ 000$		390	-	265	-	-	8	
T81	$t \leq 5$	440	-	385	-	-	4	
	$5 < t \leq 15$	440	-	385	-	-	4	
	$15 < t \leq 30$	450	-	400	-	4	-	
T8								
T8510	$t \leq 50$	455	-	380	-	5	4	
T8511								
2030	T4							
	T4510	$t \leq 30$	370	-	250	-	8	6
	T4511							
3102	H112	All	80	-	30	-	25	23
3003, 3203	H112	All	95	-	35	-	17	22
3103	H112	All	95	-	35	-	25	20
5005, 5005A	H112	All	100	-	40	-	18	16
	O							
	H111	$t \leq 20$	100	150	40	-	20	18
5019	H112	$t \leq 30$	250	-	110	-	14	12
5049	H112	All	180	-	80	-	15	13
5051A	H112	All	150	-	60	-	16	14
5251	H112	All	160	-	60	-	16	14

Table 3 (continued)

Alloy	Temper	Dimensions ^a	Tensile strength <i>R_m</i> MPa		0,2 % proof stress <i>R_{p0,2}</i> MPa		Elongation min.	
			min.	max.	min.	max.	<i>A</i> %	<i>A</i> _{50mm} %
5052	H112	All	175	-	70	-	-	-
	O	All	175	245	70	-	-	20
5154A	H112	$t \leq 25$	200	-	85	-	16	14
5454	H112	$t \leq 130, A \leq 20\ 000$	215	-	85	-	-	12
	O	$t \leq 130, A \leq 20\ 000$	215	285	85	-	-	14
5754	H112	$t \leq 25$	180	-	80	-	14	12
5083	H112	$t \leq 130, A \leq 20\ 000$	270	-	140	-	12	12
	O	$t \leq 38, A \leq 20\ 000$	275	355	120	-	-	14
		$38 < t \leq 130, A \leq 20\ 000$	275	355	110	-	-	14
5086	H112	$t \leq 130, A \leq 20\ 000$	240	-	95	-	-	12
	O	$t \leq 130, A \leq 20\ 000$	240	315	95	-	-	14
6101	T6 ^g	$3 \leq t \leq 7$	195	-	165	-	-	10
		$7 < t \leq 17$	195	-	165	-	-	12
		$17 < t \leq 30$	175	-	145	-	-	14
	T7	$3 \leq t \leq 17$	135	-	110	-	-	10
6101A	T6 ^g	$t \leq 50$	200	-	170	-	10	8
6101B	T6 ^{g,h}	$t \leq 15$	215	-	160	-	8	6
	T7 ^{g,i}	$t \leq 15$	170	-	120	-	12	10
6005 ^c , 6005A ^c	T4 ^g (OP) ^j	$t \leq 25$	180	-	90	-	15	13
	T4 ^g (HP) ^k	$t \leq 10$	180	-	90	-	15	13
	T5	$t \leq 8$	250	-	200	-	8	-
	T6 ^g (OP) ^j	$t \leq 5$	270	-	225	-	8	6
		$5 < t \leq 10$	260	-	215	-	8	6
		$10 < t \leq 25$	250	-	200	-	8	6
T6 ^g (HP) ^k	$t \leq 5$	255	-	215	-	8	6	
	$5 < t \leq 15$	250	-	200	-	8	6	
6005C	T5	$t \leq 6$	245	-	205	-	-	8
		$6 < t \leq 12$	225	-	175	-	-	8
	T6 ^g	$t \leq 6$	265	-	235	-	-	8
6106	T6 ^g	$t \leq 10$	250	-	200	-	8	6
6008 ^c	T4 ^g (OP) ^j	$t \leq 10$	180	-	90	-	15	13
	T4 ^g (HP) ^k	$t \leq 10$	180	-	90	-	15	13
	T6 ^g (OP) ^j	$t \leq 5$	270	-	225	-	8	6
		$5 < t \leq 10$	260	-	215	-	8	6
	T6 ^g (HP) ^k	$t \leq 5$	255	-	215	-	8	6
		$5 < t \leq 10$	250	-	200	-	8	6

Table 3 (continued)

Alloy	Temper	Dimensions ^a	Tensile strength R_m MPa		0,2 % proof stress $R_{p0,2}$ MPa		Elongation min.	
			min.	max.	min.	max.	A %	A_{50mm} %
6110A	T4 ^g	$t \leq 25$	320	-	220	-	16	14
	T6 ^g	$t \leq 25$	380	-	360	-	10	8
6012	T6 ^g	$t \leq 30$	310	-	260	-	8	6
	T6510 ^g							
	T6511 ^g							
6014 ^c	T4 ^g (OP) ^j	$t \leq 10$	140	-	70	-	15	13
	T4 ^g (HP) ^k	$t \leq 10$	140	-	70	-	15	13
	T6 ^g (OP) ^j	$t \leq 5$	250	-	200	-	10	8
		$5 < t \leq 10$	225	-	180	-	8	6
T6 ^g (HP) ^k	$t \leq 5$	250	-	200	-	8	6	
	$5 < t \leq 10$	225	-	180	-	8	6	
6018	T6 ^g	$t \leq 30$	310	-	260	-	8	6
	T6510 ^g							
	T6511 ^g							
6351 ^c	O	All	-	160	-	110	14	12
	H111							
	T4 ^g	$t \leq 25$	205	-	110	-	14	12
	T5 (OP) ^j	$t \leq 5$	270	-	230	-	8	6
	T5 (HP) ^k	$t \leq 5$	270	-	230	-	8	6
		$t \leq 5$	290	-	250	-	8	6
T6 ^g (OP) ^j	$5 < t \leq 25$	300	-	255	-	10	8	
T6 ^g (HP) ^k	$t \leq 5$	290	-	250	-	8	6	
	$5 < t \leq 15$	300	-	255	-	10	8	
6060 ^c	T4 ^g	$t \leq 25$	120	-	60	-	16	14
	T5	$t \leq 5$	160	-	120	-	8	6
		$5 < t \leq 25$	140	-	100	-	8	6
	T6 ^g	$t \leq 3$	190	-	150	-	8	6
		$3 < t \leq 25$	170	-	140	-	8	6
	T64 ^g	$t \leq 15$	180	-	120	-	12	10
	T66 ^g	$t \leq 3$	215	-	160	-	8	6
$3 < t \leq 25$		195	-	150	-	8	6	
6360 ^c	T4 ^g	$t \leq 25$	110	-	50	-	16	14
	T5	$t \leq 25$	150	-	110	-	8	6
	T6 ^g	$t \leq 25$	185	-	140	-	8	6
	T66 ^g	$t \leq 25$	195	-	150	-	8	6

Table 3 (continued)

Alloy	Temper	Dimensions ^a	Tensile strength <i>R_m</i> MPa		0,2 % proof stress <i>R_{p0,2}</i> MPa		Elongation min.	
			min.	max.	min.	max.	<i>A</i> %	<i>A</i> _{50mm} %
6061 ^c	O ^d	All	-	145	-	110	-	16
	T4 ^g	All	175	-	110	-	14	16
	T42 ^e	All	175	-	85	-	-	16
	T6 ^g ,	$t \leq 6$	265	-	245	-	7	8
	T62 ^f	$6 < t$	265	-	245	-	-	10
6261 ^c	O,H111	All	-	170	-	120	14	12
	T4 ^g	$t \leq 25$	180	-	100	-	14	12
	T5 (OP) ^j	$t \leq 5$	270	-	230	-	8	7
		$5 < t \leq 25$	260	-	220	-	9	8
		$25 < t$	250	-	210	-	9	-
	T5 (HP) ^k	$t \leq 5$	270	-	230	-	8	7
		$5 < t \leq 10$	260	-	220	-	9	8
T6 ^g (OP) ^j	$t \leq 5$	290	-	245	-	8	7	
	$5 < t \leq 25$	280	-	235	-	8	7	
T6 ^g (HP) ^k	$t \leq 5$	290	-	245	-	8	7	
	$5 < t \leq 10$	270	-	230	-	9	8	
6262	T6 ^g	$t \leq 25$	260	-	240	-	10	8
6262A	T6 ^g	$t \leq 25$	260	-	240	-	10	8
6063 ^c	T1	$t \leq 12$	120	-	60	-	-	12
		$12 < t \leq 25$	110	-	55	-	-	12
	T4 ^g	$t \leq 25$	130	-	65	-	14	12
	T5 ^l	$t \leq 12$	150	-	110	-	7	8
		$12 < t \leq 25$	145	-	105	-	7	8
	T6 ^g	$t \leq 3$	205	-	170	-	-	8
		$3 < t \leq 25$	205	-	170	-	-	10
T64 ^g	$t \leq 15$	180	-	120	-	12	10	
T66 ^g	$t \leq 10$	245	-	200	-	8	6	
	$10 < t \leq 25$	225	-	180	-	8	6	
6063A ^c	T4 ^g	$t \leq 25$	150	-	90	-	12	10
	T5	$t \leq 10$	200	-	160	-	7	5
		$10 < t \leq 25$	190	-	150	-	6	4
	T6 ^g	$t \leq 10$	230	-	190	-	7	5
$10 < t \leq 25$		220	-	180	-	5	4	
6463 ^c	T4 ^g	$t \leq 50$	125	-	75	-	14	12
	T5	$t \leq 50$	150	-	110	-	8	6
	T6 ^g	$t \leq 50$	195	-	160	-	10	8
6065	T6 ^g	$t \leq 25$	260	-	240	-	10	8

Table 3 (continued)

Alloy	Temper	Dimensions ^a	Tensile strength R_m MPa		0,2 % proof stress $R_{p0,2}$ MPa		Elongation min.	
			min.	max.	min.	max.	A %	A_{50mm} %
6081	T6 ^g (OP) ^j	$t \leq 25$	275	-	240	-	8	6
	T6 ^g (HP) ^k	$t \leq 15$	275	-	240	-	8	6
6082 ^c	O H111	All	-	160	-	110	14	12
	T4 ^g	$t \leq 15$	205	-	110	-	14	12
	T5 (OP) ^j	$t \leq 5$	270	-	230	-	8	6
	T5 (HP) ^k	$t \leq 5$	270	-	230	-	8	6
	T6 ^g (OP) ^j	$t \leq 5$ $5 < t \leq 25$	290 310	-	250 260	-	8 10	6 8
	T6 ^g (HP) ^k	$t \leq 5$ $5 < t \leq 25$	290 310	-	250 260	-	8 10	6 8
7003 ^c	T5	$t \leq 12$	285	-	245	-	-	10
		$12 < t \leq 25$	275	-	235	-	-	10
	T6 ^g	$t \leq 10$	350	-	290	-	10	8
		$10 < t \leq 25$	340	-	280	-	10	8
7204	O	$A \leq 20\ 000$	-	245	-	145	-	12
	T4 ^m	$A \leq 20\ 000$	315	-	195	-	-	11
	T5	$A \leq 20\ 000$	325	-	245	-	-	10
	T6	$A \leq 20\ 000$	335	-	275	-	-	10
7005	T53	$3 < t \leq 25, A \leq 16\ 000$	345	-	305	-	9	10
	T6 ^g	$t \leq 40$	350	-	290	-	10	8
7108	T6 ^g	$t \leq 30$	310	-	260	-	10	8
7108A	T6 ^g	$t \leq 40$	310	-	260	-	12	10
	T66 ^g	$t \leq 40$	350	-	290	-	10	8
7020	T6 ^g	$t \leq 40$	350	-	290	-	10	8
7021	T6 ^g	$t \leq 20$	410	-	350	-	10	8
7022	T6 ^g							
	T6510 ^g	$t \leq 30$	490	-	420	-	7	5
	T6511 ^g							
7049A	T6							
	T6510	$t \leq 30$	610	-	530	-	5	4
	T6511							
7050	T73511	$t \leq 125, A \leq 20\ 000$	485	-	415	-	7	8
	T74511	$t \leq 76$	505	-	435	-	-	7
	T76510	$t \leq 127$	545	-	475	-	-	7