



ALLUMINIUM TREAD PLATES

ALLOY 5052 - 5754

Chemical composition

Alloy	Si	Fe	Mn	Cu	Mg	Zn	Cr	Ti	Others	Total others	Al
5052	0,25% max	0,40% max	0,10% max	0,10% max	2,2 – 2,8%	0,10% max	0,15 - 0,35%	-	0,05% max	0,15% max	Remain
5754	0,40% max	0,40% max	0,50% max	0,10% max	2,6 – 3,6%	0,20% max	0,30% max	0,15% max	0,05% max	0,15% max	Remain

(According to EN 573-3)

Typical physical properties

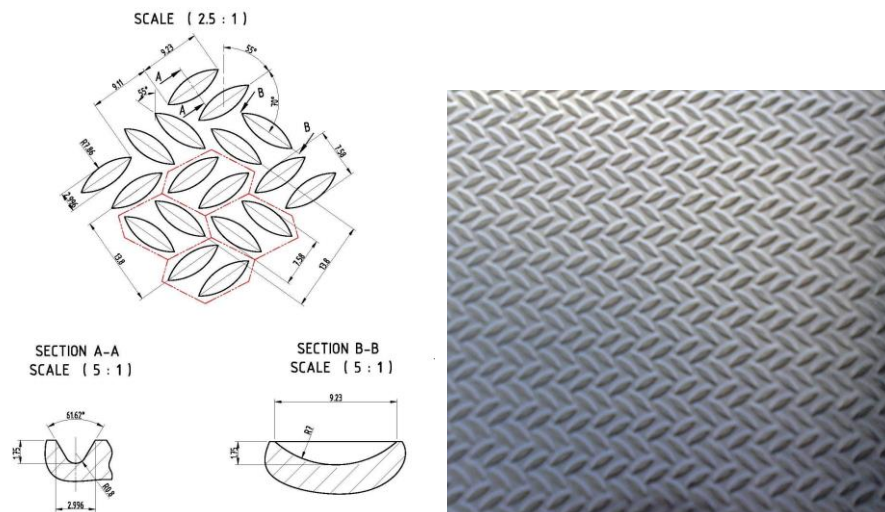
Alloy	Specific density (g/cm ³)	Electrical conductivity (m/Ω mm ²)	Thermal conductivity (W/m*K)	Coefficient of linear expansion (10 ⁻⁶ K ⁻¹)
5052	2,68	19 – 21	130 – 150	23,8
5754	2,66	20 – 23	140 – 160	23,9

Mechanical Properties

Tensile Strength (Rm) – Yield Strength (R0,2) – Elongation (EL)

Temper	Alloy 5052			Alloy 5754		
	H114	H224	H244	H114	H224	H244
Rm (N/mm²)	170 – 240	210 – 270	230 – 290	190 – 260	220 – 275	240 – 295
R0,2 (N/mm²)	> 65	> 130	> 150	> 80	> 130	> 160
EL - A50 (%)	≥ 10%	≥ 6%	≥ 3%	≥ 10%	≥ 6%	≥ 3%
Recommended min. bending radius at 90°	1,0*t (t ≤ 3 mm)	2,0*t	2,5*t (t ≤ 3 mm)	2,0*t	2,5*t	3,0*t (t ≤ 3 mm)
	1,75*t (t > 3 mm)		3,0*t (t > 3 mm)			3,5*t (t > 3 mm)

Pattern



The percentage of the engraved surface: **approx. 43,3%**

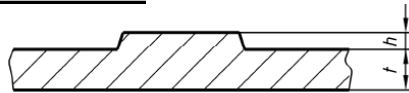


Production capabilities

Alloy / Temper	Thickness		Width Sheets	
	From	Up to	From	Up to
All	1,5	2	1000	1500
All	2	3	1000	2500

Cut to length capabilities for sheets: up to 14m.

Tolerance on dimensions and form



Pattern height tolerances

Range of thickness (t)	Raised Pattern	
	Nominal height (h)	Height tolerance (h)
1,5 – 3 mm	0,5 mm	+/- 0,2 mm

Tolerances on nominal thickness

Range of thickness (t)	Thickness tolerance for nominal width	
	t ≤ 1600mm	1600 mm < t ≤ 2500 mm
1,5 < t ≤ 2,5	+/- 0,20 mm	+/- 0,30 mm
2,5 < t ≤ 3,0	+/- 0,30 mm	+/- 0,40 mm

Width and length tolerances

Thickness (t)	Width		Length		
	≤ 1500 mm	1500 < w ≤ 2500 mm	≤ 2000 mm	2000 < L ≤ 5000 mm	L > 5000 mm
1,5 ≤ t ≤ 3	-0 / +8 mm	-0 / +8 mm	-0 / +8 mm	-0 / +8 mm	-0 / +8 mm

Longitudinal and transverse edge straightness

The maximum deviation from straightness along the sides of a sheet shall not exceed 0,2% of the specific length (max 10mm) while the sheet is resting on a flat horizontal surface (table).

Flatness tolerance

Nominal thickness t	Maximum total deviation (curvature)	
	on length (f/L)	on width (f/W)
1,5 ≤ t ≤ 3,0	0,4% (max 15mm)	0,5% (max 10mm)

Squareness tolerance

Nominal length		Squareness tolerance for nominal width		
Over	Up to and including	1000 < w ≤ 1500	1500 < w ≤ 2000	2000 < w ≤ 2500
-	2000	7	8	-
2000	3000	7	9	10
3000	3500	8	10	10
3500	5000	10	10	12
5000	-	12	15	15

Squareness tolerance is expressed as the maximum allowable difference in length of diagonals.

Other dimensions (thickness, width, pattern thickness) not included in this technical data sheet can be produced upon agreement with the customer.