

TREADHEIGHTS

Treadheights will be in accordance with EN 1386.

PLATE MASS

To find the nominal mass of a 5 Bar plate per square metre, apply the following formula (where t = base thickness in mm) $(2.71 \times t) + 0.8 = \text{Kg per m}^2$.

BENDING

Recommend minimum bend radii for 90 degree cold bends.

Thickness (mm)	1.5	1.5 to 3.0	3.0 to 6.0
Min Bend Radius	1t	1.5t	2t

WELDING

1050 and 4017 can be joined using MIG, TIG, LASER welding techniques. It is recommended that 4043 filler alloy is used.

SIZES AVAILABLE

Item	Gauge (mm)	Width (mm)	Length (mm)
1	1.5	1250	2500
2	1.5	1500	3000
3	2.0	1250	2500
4	2.0	1500	3000
5	3.0	1250	2500
6	3.0	1500	3000
7	4.5	1250	2500
8	6.0	1250	2500
9	1.5	1250	Coil
10	1.5	1500	Coil
11	2.0	1250	Coil
12	3.0	1250	Coil

Think **future**. Think aluminium.

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HULAMIN

TREADPLATE

ROLLED PRODUCTS

Think Future. Think Aluminium.

TREADPLATE

Hulamin's Aluminium Treadplate is a quality product which combines light weight with high strength. It is extremely hard wearing, non-rusting and non-slip. It is these characteristics which make it the ideal heavy-duty flooring surface in a wide variety of industrial applications. These include factory floors, loading bays, kick plates, stair treads and vehicle floors.

The tread projections in the classic 5 bar pattern are integral with the base metal and give positive grip in every direction. Due to the absence of recesses, dirt is prevented from accumulating and is quickly and easily washed down with hot water or detergent.

The hygienic and easy-to-clean properties of Hulamin Treadplate make it particularly well suited to applications in breweries, dairies and other food processing plants.

ALLOY 1050

CHEMICAL COMPOSITION (IN WEIGHT %)

	Cu	Mg	Si	Fe	Mn	Zn	Ti	Other elements	
								Each	Total
max	0.05	0.05	0.25	0.40	0.05	0.07	0.05	0.03	0.10

PHYSICAL PROPERTIES

Property	Value	Unit
Density	2.71	g/cm ³
Modulus of Elasticity	71	GPa
Modulus of Rigidity	26.5	GPa
Melting Range	650-660	°C
Specific heat between 10-100°C (283-373 K)	0.92	J/gK
Co-efficient of linear expansion between 20-100°C (293-373K)	24 x 10 ⁻⁶	/K
Thermal Conductivity at 25°C (298 K)	222	W/mK
Resistivity at 20°C (293 K)	0.028x10 ⁻⁶	Ω m

MECHANICAL PROPERTIES

Alloy/ Temper	Proof (MPa)		UTS (MPa)		Elongation percent in 50mm		Tread Height (mm)		Recommended minimum bend Radius (90°)
	Min	Max	Min	Max	Min	Max	Min	Max	
1050 H14	75	-	105	145	4%	-	0.6		0t

ALLOY 4017

CHEMICAL COMPOSITION (IN WEIGHT %)

%	Si	Fe	Cu	Mn	Mg	Zn	Other elements	
							Each	Total
Min	0.60	-	0.10	0.60	0.10	-		
Max	1.60	0.70	0.50	1.20	0.50	0.20	0.05	0.15

PHYSICAL PROPERTIES

Property	Value	Unit
Density at 20°C	2.72	g/cm ³
Melting Range	560-640	°C
Thermal Capacity	900	J/kg°C
Thermal Conductivity	200	W/m°C
Thermal Expansion	23 x 10 ⁻⁵	/°C
Resistivity at 20°	32	nΩm
Modulus of Elasticity	70	GPa
Modulus of Rigidity	27	GPa

MECHANICAL PROPERTIES

Alloy/ Temper	Proof (MPa)		UTS (MPa)		Elongation percent in 50mm		Tread Height (mm)		Recommended minimum bend Radius (90°)
	Min	Max	Min	Max	Min	Max	Min	Max	
4017-H22	55	-	130	170	8%	-	0.6		0t

GENERIC PROCESSING ATTRIBUTES OF ALLOY 1050 AND 4017

Attribute	Alloy 1050	Alloy 4017
Anodising	Excellent	Not suitable
Brazeability	Excellent	Excellent
Corrosion Resistance	Excellent	Excellent
Formability	Excellent	Good
Machinability	Poor	Poor
Surface finish	Standard	Brighter than 1050 tread
Tread pattern	5 Bar	5 Bar
Weldability	Excellent - 4043 filler alloy recommended	Very good - 4043 filler alloy recommended

Note: Treadplate in 1050 and 4017 should NOT be used interchangeably in any fabricated product. The surface finish is different and physical properties are different.