

Large area transport tread plate

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At ThyssenKrupp Materials (UK) we react to the ever changing needs of our customers and will be increasing our aluminium range to include the following products for the transportation and commercial vehicle body building industries.

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ThyssenKrupp Materials (UK)



ThyssenKrupp



“Rice grain” tread plates

Our 5086 H244 “rice grain” tread plates are the best solution for the floors of commercial vehicles and refrigerated lorries. They also have similar mechanical properties to hard tempered metal and are comparable to quenched alloys: the same hardness and similar mechanical properties, better resistance to corrosion and a more attractive surface.

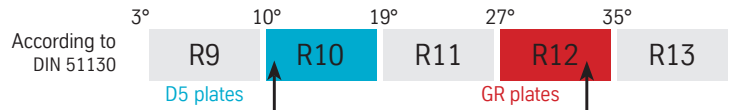
	Rm (MPa)	Rp 0.2 (MPa)	HB
6082 T6	310	260	105/109
5086 H244	300 mini 360 maxi	220	105/109

Lighter than standard D5 tread plates of the same size (a gain of 40 kg for the largest sizes).

Quieter: rolling carts over the plate is significantly quieter (only 73.6 dB compared to 86 dB for D5 tread plates). This is a great advantage when loading and unloading vehicles in urban areas.

Easy to clean: the tread is deep enough for optimal antiskid performance, yet shallow enough for easy cleaning. This is very important for vehicles used to transport food.

Antiskid: the “rice grain” pattern offers better antiskid performance than standard D5 tread.



Possibility of special sizes to create floors with a single sheet up to 2,500 mm wide and 13,500 mm long and a core from 2.5 mm to 3.2 mm thick.

The 5083 alloy can be welded and resists corrosion.

Large sheets are delivered pre-treated with a chemical conversion on both sides and X08F epoxy primer for bonding on the smooth side.

"Rice grain" plates can also be used for their decorative or antiskid qualities for numerous applications in alloys (5052, 5754) and standard sizes.

5754 H244 1.5 < th <= 3mm

Rm (MPa)	Rp 0.2 (MPa)	Min bending R.90°
240 mini 295 maxi	160 mini	3 x th



D5



D5

Transport

Floors and sides of refrigerated and livestock vehicles, boat gangways, barge decks, marina catwalks and pontoons...

Decoration

Floors of exhibition stalls, storage bins, floor and wall coverings, stairs, ladders, ramps, steps...

Calculation of equivalent thickness

Thickness of tread plates and sheets is indicated by two figures: the first corresponds to the thickness of the core material and the second to the total thickness including tread.

Example of equivalent thicknesses depending on the tread pattern and height.

Tread Height	GR	D5
0.5	0.106	
1		0.274
1.5		0.342

Value of a

Equivalent thickness = Core materials + a (mm)

E.g. Sheet 2.7/3.2

(core thickness 2.7mm / total thickness 3.2 / Equivalent thickness $2.7 + 0.106 = 2.806$ mm)

Manufacturing possibilities: alloys, tempers and pattern

Core thickness (mm)	Width (mm)	Length (mm)	Pattern	Type of application	Alloy	Temper	Comments
1.5 to 2.5	<=2000	<=4500	GR D5	Various decorative uses	5052, 5754	H222, H244	
2.5 to 3.2	>=2000	<8000 to 2500	GR D5	Lorry floors	5086	H244	Smooth side with or without X08F primer for bonding
2.5 to 3.2	>=2000 to 2500	8000 to 13500	GR D5	Lorry and semi-trailer floors	5086	H244	Smooth side with X08F primer for bonding
3.5 to 15	<=2500	<=15000	D5	Various walkways	5052, 5754, 5086	F, H114, H224 ⁽¹⁾ , H244 ⁽¹⁾	
2.5 to 7.5	<=2500	<=10000	D5	Special uses	6082, 7020	T6 ⁽²⁾	

Tread tolerance

Pattern	Core thickness (mm)	Tread height	Tolerance (mm)
GR	1.5 to 3.2	0.5	+/- 0.2
D5	1.5 to 2.5	1	+/- 0.4
D5	> 2.5	1.5	+/- 0.6

Reference standard

Standard EN1386, November 2007 Edition.

Confirmation of special tolerances when ordering.



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