

HR550LA-GI - grade 80

A stronger, lighter more formable steel with excellent edge ductility

HR550LA enables weight saving or more robust component design compared to lower strength HSLA steels. Its single phase character and low alloy content allow for excellent processability.

Its robust and consistent properties meet or exceed industry norms. Coming in both a coated and uncoated variant it covers most of the variations in demand today.

Mechanical properties

Grade	Specification	Test direction	Yield strength	Tensile strength	Elongation		n-value	Min. bend test diameter*
			R _{p0.2} (MPa)	R _m (MPa)	A ₈₀ (%)	A ₅₀ (%)		
HR550LA - GI Grade 80	Tata Steel specification	L	550 - 650	620 - 720	≥ 16	≥ 18	≥ 0.08	
HR550LA - GI Grade 80	Tata Steel typical	L	600	660	18	20	0.11	
HR550LA - GI	VDA norm (239-100)	L	550 - 670	610 - 750	≥ 11	≥ 12	-	
Grade 80 HSLAS-F	ASTM norm (A653)	L	≥ 550	≥ 620	-	≥ 12		3t

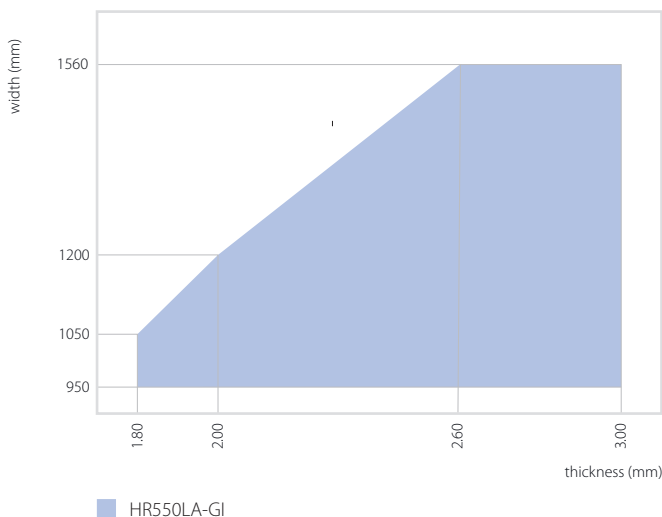
* Minimum inside radius for cold bending

Chemical composition

Grade	Specification	C	Mn	P	S	Si	Al _{tot}		Nb	V	Ti	Mo	Cu	Ni
		max.	max.	max.	max.	max.	min.	max.	max.	max.	max.	max.	max.	max.
HR550LA	Tata Steel specification	0.08	1.65	0.03	0.02	0.008	0.015	0.06	0.06	0.08	-	-	-	-
HR550LA	VDA norm	0.12	1.80	0.6	0.03	0.025	0.015	-	0.15	0.1	-	-	0.2	-
Grade 80	ASTM norm	0.15	1.65	-	0.02	0.025	-	-	-	-	0.15	0.16	0.2	0.2

All values are in weight%

Dimensional window of HR550LA-GI - grade 80



Please refer to Tata Steel or your local sales representative for dimensions which fall outside of the above matrix.

Tolerances on thickness

½ EN 10051:2010.

Product support

Our material experts are there to support the deployment of HR550LA in your specific application area. Our online material database Aurora Online provides our customers with comprehensive data sheets and ready to run input decks.

Further information (also for access to Aurora® Online)

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