

MagiZinc® Auto

The new high performance coating for inner parts and outer panels

MagiZinc Auto is an innovative hot-dip zinc coating alloyed with magnesium and aluminium. The coating offers the automotive industry a number of advantages over conventional zinc coatings and is available for both inner parts as well as outer panels. The outstanding resistance against corrosion and excellent stone chipping behaviour allow a reduction of coating thickness without loss of performance.

Surface aspects

Zinc layer

Weight of MagiZinc Auto (doubled sided) and thickness of the zinc layer (single sided)

Coating layer	Composition [%]	Zinc layer (g/m ²)	Zinc layer (µm)
MagiZinc Auto	Mg: 1.4 – 1.8	Outer: 90 - 140 Outer*: 70	6 - 10 5
	Al: 1.4 – 1.8 Rest is Zn	Inner: 70 - 140	5 - 10

* under development

The MagiZinc product has virtually no spangle.

Quality

Surface quality is in line with standards EN 10327 (MagiZinc is not included in the standard) and SEW022. The product can currently be delivered with surface quality MB and MC.

Roughness

MagiZinc coated steel with surface quality MB and MC can be obtained in different roughness ranges. If no roughness is specified, normal is delivered.

Description	Roughness R _a (µm) cut off 2.5 mm	Roughness R _a (µm) cut off 0.8 mm
Normal	0.9 – 1.5	0.75 – 1.25
High	1.2 -1.8	1.00 – 1.55

Protection

The material surface is oiled with preservative oil. Other types of oils are available upon request. The amount of the supplied oil ranges from 0.5 g/m² up to 2.0 g/m². Other oiling levels are available upon request.

Furthermore, the excellent press and assembly performance ensure better production yields. MagiZinc Auto offers multiple ways to reduce your total cost of ownership (TCO). Especially for complex outer panels with very stringent quality requirements, the benefits of MagiZinc Auto will be significant.

Grades and dimensions

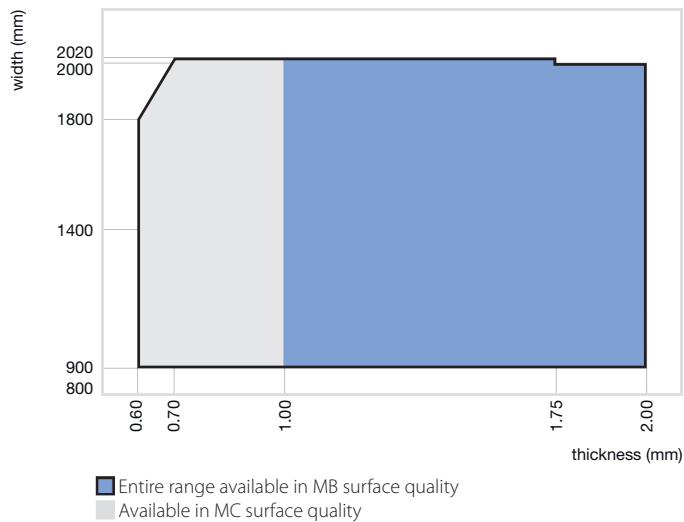
Steel grades

MagiZinc coated steel is available in the following range of steel grades:

Product group	Product subgroup	Product	International material specification		Available for outer panels
			EN 10346	VDA 239-100	
Steel for forming		DX51D	DX51D		
		DX52D	DX52D	CR1	
		DX53D	DX53D	CR2	X
		DX54D	DX54D	CR3	X
		DX56D	DX56D	CR4	X
		DX57D	DX57D	CR5	X
		DX57 HyperForm**			
High-strength steel	Phosphorus alloyed interstitial free	IF180	HX180YD	CR180IF	
		IF220	HX220YD	CR210IF	X
		IF260	HX260YD	CR240IF	X
	Bake hardening	BH180	HX180BD	CR180BH	X
		BH220	HX220BD	CR220BH	X
		BH260	HX260BD	CR260BH	X
		BH300	HX300BD	CR300BH	
	Phosphorus alloyed	P220	HX220PD	-	
		P260	HX260PD	-	
		P300	HX300PD	-	
Microalloyed	HSLA220	HX220LAD	CR210LA		
	HSLA260	HX260LAD	CR240LA		
	HSLA300	HX300LAD	CR270LA / CR300LA		
	HSLA340	HX340LAD	CR300LA		
	HSLA380	HX380LAD	CR340LA		
	HSLA420	HX420LAD	CR380LA		
Advanced high-strength steel	Dual phase	DP600	HCT600X	CR330Y590T-DP	

* under development

Dimensions of MagiZinc® Auto



Please refer to Tata Steel or your local sales representative for dimensions which fall outside of the above matrix. The full dimensional window of our MagiZinc offering can be found in the product range of Tata Steel in Europe.

Our material experts are there to support the deployment of our products in your specific application area.

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