

Cold-forming and drawing steels

Hot-coated

Flat-rolled carbon steel products can be coated with special metals or mixtures of metals, to completely avoid or postpone as much as possible the oxidation process of the steel.

These coatings may vary in type and thickness depending on the customer's needs and the impact that a given environmental context may have on the material.

Albasider is able to supply its customers with sheets, strips and strips of hot-coated materials, with thicknesses between 0.4 and 3 mm. Albasider also provides its customers with a wide range of coating types.

	Thickness	Width
Plates	0.40 - 3	≤ 2000
Tapes	0.40 - 3	≤ 2000
Straps	0.40 - 3	da 180 a 2000

Coating grades (+ZM)

ZM	ZM 90	ZM 120	ZM 140	ZM 200	ZM 310
Thickness (μm)	7/7	9/9	11/11	16/16	25/25

> Zinc Magnesium Coating (+ZM)

The Zinc-Magnesium Coating consists of a special zinc-aluminium-magnesium mixture.

The sum of aluminium and magnesium is between 1.5% and 8%, the remainder being zinc.

The minimum magnesium content must be no less than 0.2 per cent. This technology guarantees significantly higher corrosion resistance compared to other types of coating.

It is particularly suitable for very aggressive environments, when a very high standard of corrosion resistance is required.

Surface Finish		Surface Treatment	
Finish	Appearance	C	Passivated
A	Standard	O	Oiled
B	Enhanced	CO	Passivated + Oiled
		S	Anti fingerprint

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The coated drawing steels category provides users with excellent performance in terms of deep drawing, bendability and formability.

In addition to these mechanical characteristics, the chosen coating allows protection from oxidation even after the material has been processed.

The higher the grade chosen, DX51D → DX57D, the greater the material's propensity for deep drawing.

Main fields of application:

HOUSEHOLD APPLIANCES

AUTOMOTIVE
AND TRANSPORT

INDUSTRY

CIVIL AND INDUSTRIAL
SUPPLIES

AIR CONDITIONING

PIPES

PROFILES

Mechanical properties

Thickness (mm)	EN 10346	DX51D+ZM	DX52D+ZM	DX53D+ZM	DX54D+ZM	DX56D+ZM	DX57D+ZM
0.40 - 0.50	Re (Mpa)	-	140 - 360*	140 - 260	120 - 220	120 - 180	120 - 170
	Rm (Mpa)	270 - 500	270 - 420	270 - 380	260 - 350	260 - 350	260 - 350
	A 80 (%)	≥ 18	≥ 22	≥ 26	≥ 30	≥ 33	≥ 35
	r 90	-	-	-	≥ 1.40	≥ 1.30	≥ 1.50
	n 90	-	-	-	≥ 0.18	≥ 0.17	≥ 0.18
0.51 - 0.70	Re (Mpa)	-	140 - 360*	140 - 260	120 - 220	120 - 180	120 - 170
	Rm (Mpa)	270 - 500	270 - 420	270 - 380	260 - 350	260 - 350	260 - 350
	A 80 (%)	≥ 20	≥ 24	≥ 28	≥ 32	≥ 35	≥ 37
	r 90	-	-	-	≥ 1.40	≥ 1.50	≥ 1.70
	n 90	-	-	-	≥ 0.18	≥ 0.19	≥ 0.20
0.71 - 1.49	Re (Mpa)	-	140 - 360*	140 - 260	120 - 220	120 - 180	120 - 170
	Rm (Mpa)	270 - 500	270 - 420	270 - 380	260 - 350	260 - 350	260 - 350
	A 80 (%)	≥ 22	≥ 26	≥ 30	≥ 34	≥ 37	≥ 39
	r 90	-	-	-	≥ 1.40	≥ 1.70	≥ 1.90
	n 90	-	-	-	≥ 0.18	≥ 0.20	≥ 0.21
1.50 - 1.99	Re (Mpa)	-	140 - 360*	140 - 260	120 - 220	120 - 180	120 - 170
	Rm (Mpa)	271 - 500	270 - 420	270 - 380	260 - 350	260 - 350	260 - 350
	A 80 (%)	≥ 22	≥ 26	≥ 30	≥ 34	≥ 37	≥ 39
	r 90	-	-	-	≥ 1.20	≥ 1.50	≥ 1.70
	n 90	-	-	-	≥ 0.18	≥ 0.20	≥ 0.21
2 - 3	Re (Mpa)	-	140 - 360*	140 - 260	120 - 220	120 - 180	120 - 170
	Rm (Mpa)	271 - 500	270 - 420	270 - 380	260 - 350	260 - 350	260 - 350
	A 80 (%)	≥ 22	≥ 26	≥ 30	≥ 34	≥ 37	≥ 39
	r 90	-	-	-	≥ 1	≥ 1.30	≥ 1.50
	n 90	-	-	-	≥ 0.18	≥ 0.20	≥ 0.21

Please note: Tests carried out transversely to the rolling direction. *Parameter valid for surface appearance A. Surface appearance B has a Re (Mpa) = 140 - 300.