

GALVANISED (+Z)

Bake hardening 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 (+Z)

Z	Z 80	Z 100	Z 140	Z 200	Z 225	Z 275	Z 350	Z 450	Z 600	Z 725
Thickness (µm)	5/5	7/7	10/10	14/14	16/16	20/20	25/25	32/32	42/42	51/51

> Galvanised (+Z)

The galvanised coating consists of a high-temperature bath of molten zinc, continuously applied to the steel substrate by means of a laminate immersion process.

This type of coating provides excellent corrosion resistance while simultaneously ensuring formability of the material and weldability.

Surface Finish		Surface Treatment	
Finish	Appearance	C	Passivated
A	Standard	O	Oiled
		S	Anti fingerprint

Bake hardening steels

Bake hardening steels allow for a higher level of mechanical strength with the same thickness. This effect is obtained through a process called Bake Hardening Response (BHR), which guarantees a particular hardening of the material, through an annealing heat treatment, carried out after deformation and painting of the material.

The great advantage of these products is that they initially show a not particularly high yield strength, which allows even complex machinings to be carried out. Following the machining and painting process, depending on the deformation imparted, the final part has a higher mechanical strength. This also results in high fatigue and impact resistance.

Main fields of application:

AUTOMOTIVE
AND TRANSPORT

Mechanical properties

Thickness(mm)	EN 10346	HX180BD+Z	HX220BD+Z	HX260BD+Z	HX300BD+Z	HX340BD+Z
0.40 - 0.50	Re (Mpa)	180 - 240	220 - 280	260 - 320	300 - 360	340 - 400
	Rm (Mpa)	290 - 360	320 - 400	360 - 440	400 - 480	440 - 520
	A 80 (%)	≥ 30	≥ 28	≥ 24	≥ 22	≥ 20
	r 90	≥ 1.10	≥ 0.80	-	-	-
	n 90	≥ 0.13	≥ 0.12	-	-	-
0.51 - 0.70	Re (Mpa)	180 - 240	220 - 280	260 - 320	300 - 360	340 - 400
	Rm (Mpa)	290 - 360	320 - 400	360 - 440	400 - 480	440 - 520
	A 80 (%)	≥ 32	≥ 30	≥ 26	≥ 24	≥ 22
	r 90	≥ 1.30	≥ 1	-	-	-
	n 90	≥ 0.15	≥ 0.14	-	-	-
0.71 - 1.49	Re (Mpa)	180 - 240	220 - 280	260 - 320	300 - 360	340 - 400
	Rm (Mpa)	290 - 360	320 - 400	360 - 440	400 - 480	440 - 520
	A 80 (%)	≥ 34	≥ 32	≥ 28	≥ 26	≥ 24
	r 90	≥ 1.50	≥ 1.20	-	-	-
	n 90	≥ 0.16	≥ 0.15	-	-	-
1.50 - 1.99	Re (Mpa)	180 - 240	220 - 280	260 - 320	300 - 360	340 - 400
	Rm (Mpa)	290 - 360	320 - 400	360 - 440	400 - 480	440 - 520
	A 80 (%)	≥ 34	≥ 32	≥ 28	≥ 26	≥ 24
	r 90	≥ 1.30	≥ 1	-	-	-
	n 90	≥ 0.16	≥ 0.15	-	-	-
2 - 3	Re (Mpa)	180 - 240	220 - 280	260 - 320	300 - 360	340 - 400
	Rm (Mpa)	290 - 360	320 - 400	360 - 440	400 - 480	440 - 520
	A 80 (%)	≥ 34	≥ 32	≥ 28	≥ 26	≥ 24
	r 90	≥ 1.10	≥ 0.80	-	-	-
	n 90	≥ 0.16	≥ 0.15	-	-	-

Please note: Tests carried out transversely to the rolling direction.