



GALVANIZED STRIPS/SHEETS

EN 10346

Galvanization consists of applying a metallic coating over the steel through a continuous hot-dip process in a zinc, zinc-aluminum, or zinc-silicon bath.

The anticorrosion protection properties of the metallic coating are added to the inherent properties of the steel.

Galvanized steel sheets offer excellent results in deformation, painting, and mechanical construction processes, providing superior corrosion resistance, according to the type of coating used.

The most common applications for galvanized products are in metal construction, building construction, furniture, or home appliances, among others.

DIMENSIONAL PROPERTIES

Width tolerances for shapes and wide strips

Nominal width (mm)	Normal tolerances (mm)		Tight tolerances (S) (mm)	
	Lower	Higher	Lower	Higher
$< 600 \leq 1200$	0	+5	0	+2
$> 1200 \leq 1500$	0	+6	0	+2
> 1500	0	+7	0	+3

DIMENSIONAL PROPERTIES

Thickness tolerance

Nominal thickness (mm)	Tolerances for a nominal width (mm)			Tight tolerances (S) for a nominal width (mm)		
	≤ 1200	> 1200 ≤ 1500	> 1500	≤ 1200	> 1200 ≤ 1500	> 1500
≤ 0,40	± 0,05	± 0,06	-	± 0,03	± 0,04	-
> 0,40 ≤ 0,60	± 0,06	± 0,07	± 0,08	± 0,04	± 0,05	± 0,06
> 0,60 ≤ 0,80	± 0,07	± 0,08	± 0,09	± 0,05	± 0,06	± 0,06
> 0,80 ≤ 1,00	± 0,08	± 0,09	± 0,10	± 0,06	± 0,07	± 0,07
> 1,00 ≤ 01,20	± 0,09	± 0,10	± 0,11	± 0,07	± 0,08	± 0,08
> 1,20 ≤ 1,60	± 0,11	± 0,12	± 0,12	± 0,08	± 0,09	± 0,09
> 1,60 ≤ 2,00	± 0,13	± 0,14	± 0,14	± 0,09	± 0,10	± 0,10
> 2,00 ≤ 2,50	± 0,15	± 0,16	± 0,16	± 0,11	± 0,12	± 0,12
> 2,50 ≤ 3,00	± 0,17	± 0,18	± 0,18	± 0,12	± 0,13	± 0,13

Length tolerances

Length (mm)	Normal tolerance (mm)		Tight tolerance (S) (mm)	
	Lower	Higher	Lower	Higher
< 2000	0	6	0	3
≥ 2000	0	0,3% of the length	0	0,15% of the length

Flatness tolerances of low carbon steel sheets

Tolerance Grade	Nominal width (mm)	Nominal thickness (mm)		
		< 0,7	≥ 0,7 < 1,2	≥ 1,2
Normal	≥ 600 < 1200	12	10	8
	≥ 1200 < 1500	15	12	10
	≥ 1500	19	17	15
Tight (FS)	≥ 600 < 1200	5	4	3
	≥ 1200 < 1500	6	5	4
	≥ 1500	8	7	6

TABLE OF DIMENSIONS

Thickness (mm)	Width (mm)								
	1000			1250			1500		
	Sheets (kg)	Units p/ Bundle	Bundle (kg)	Sheets (kg)	Units p/ Bundle	Bundle (kg)	Sheets (kg)	Units p/ Bundle	Bundle (kg)
0,4	6,28	400	2512	9,81		0	14,13		0
0,5	7,85	320	2512	12,27	205	2514	17,66	140	2473
0,6	9,42	270	2543	14,72	170	2502	21,2	120	2543
0,8	12,56	200	2512	19,63	130	2551	28,26	90	2543
1	15,7	165	2591	24,53	105	2576	35,33	75	2649
1,25	19,63	125	2453	30,66	85	2606	44,16	60	2649
1,5	23,55	110	2591	36,8	70	2576	52,99	50	2649
2	31,4	80	2512	49,06	50	2453	70,65	35	2473
2,5	39,25	64	2512	61,33	41	2514	88,31	29	2561
3	47,1	53	2496	73,59	34	2502	105,98	24	2543
Length ref. (mm)	2000			2500			3000		

STEEL GRADES

Steel Grade	Coating type	Chemical properties								Mechanical properties			
		Nominal thicknesses % by mass								Coating symbols	R _e (MPa)	R _m (MPa)	A ₈₀ min. %
		C % máx.	Si % máx.	Mn % máx.	P % máx.	S % máx.	Ti % máx. a)	Al _{total} % mín.	Nb % máx.				
DX51D	+Z;+ZA;+ZM;+AZ;+AS	0,18	0,50	1,20	0,12	0,045	0,30	-	-	+Z;+ZA;+ZM;+AZ;+AS	-	270-500	22
DX52D	+Z;+ZA;+ZM;+AZ;+AS	0,12	0,50	0,60	0,10	0,045	0,30	-	-	+Z;+ZA;+ZM;+AZ;+AS	140-300	270-420	26
DX53D	+Z;+ZA;+ZM;+AZ;+AS	0,12	0,50	0,60	0,10	0,045	0,30	-	-	+Z;+ZA;+ZM;+AZ;+AS	140-260	270-380	30
DX54D	+Z;+ZA;+ZM;+AZ;+AS	0,12	0,50	0,60	0,10	0,045	0,30	-	-	+Z;+ZA +ZM +AZ +AS	120-220 120-220 120-220 120-220	260-350 260-350 260-350 260-350	36 34 36 34
DX56D	+Z;+ZA;+ZM;+AZ;+AS	0,12	0,50	0,60	0,10	0,045	0,30	-	-	+Z;+ZA +ZM +AZ;+AS	120-180 120-180 120-180	260-350 260-350 260-350	39 37 39
DX57D	+Z;+ZA;+ZM;+AZ;+AS	0,12	0,50	0,60	0,10	0,045	0,30	-	-	+Z;+ZA +ZM +AZ;+AS	120-170 120-170 120-170	260-350 260-350 260-350	41 39 41

STEEL GRADES

Steel Grade	Coating type	Chemical properties								Coating symbols	Mechanical properties		
		Nominal thicknesses % by mass									R _e (MPa)	R _m (MPa)	A ₈₀ min. %
		C % máx.	Si % máx.	Mn % máx.	P % máx.	S % máx.	Ti % máx. ^{a)}	Al _{total} % mín.	Nb % máx.		R _{p0.2} min.	R _m min.	A ₈₀ min.
S220GD	+Z;+ZA;+ZM;+AZ;+AS	0,20	0,60	1,70	0,10	0,045	-	-	-	+Z;+ZA;+ZM;+AZ;+AS	220	300	20
S250GD	+Z;+ZA;+ZM;+AZ;+AS	0,20	0,60	1,70	0,10	0,045	-	-	-	+Z;+ZA;+ZM;+AZ;+AS	250	330	19
S280GD	+Z;+ZA;+ZM;+AZ;+AS	0,20	0,60	1,70	0,10	0,045	-	-	-	+Z;+ZA;+ZM;+AZ;+AS	280	360	18
S320GD	+Z;+ZA;+ZM;+AZ;+AS	0,20	0,60	1,70	0,10	0,045	-	-	-	+Z;+ZA;+ZM;+AZ;+AS	320	390	17
S350GD	+Z;+ZA;+ZM;+AZ;+AS	0,20	0,60	1,70	0,10	0,045	-	-	-	+Z;+ZA;+ZM;+AZ;+AS	350	420	16
S390GD	+Z;+ZA;+ZM;+AZ;+AS	0,20	0,60	1,70	0,10	0,045	-	-	-	+Z;+ZA;+ZM;+AZ;+AS	390	460	16
S420GD	+Z;+ZA;+ZM;+AZ;+AS	0,20	0,60	1,70	0,10	0,045	-	-	-	+Z;+ZA;+ZM;+AZ;+AS	420	480	15
S450GD	+Z;+ZA;+ZM;+AZ;+AS	0,20	0,60	1,70	0,10	0,045	-	-	-	+Z;+ZA;+ZM;+AZ;+AS	450	510	14
S550GD	+Z;+ZA;+ZM;+AZ;+AS	0,20	0,60	1,70	0,10	0,045	-	-	-	+Z;+ZA;+ZM;+AZ;+AS	550	560	-
											R _{p0.2}	R _m	A ₈₀ min.
HX180YD	+Z;+ZA;+ZM;+AZ;+AS	0,01	0,30	0,70	0,06	0,025	0,12	0,01	0,09	+Z;+ZA;+ZM;+AZ;+AS	180-240	330-390	34
HX220YD	+Z;+ZA;+ZM;+AZ;+AS	0,01	0,30	0,90	0,08	0,025	0,12	0,01	0,09		220-280	340-420	32
HX260YD	+Z;+ZA;+ZM;+AZ;+AS	0,01	0,30	1,60	0,10	0,025	0,12	0,01	0,09		260-320	380-440	30
HX260LAD	+Z;+ZA;+ZM;+AZ;+AS	0,11	0,50	1,00	0,03	0,025	0,15	0,015	0,09		260-330	350-430	26
HX300YD	+Z;+ZA;+ZM;+AZ;+AS	0,015	0,30	1,60	0,10	0,025	0,12	0,01	0,09		300-360	390-470	27
HX300LAD	+Z;+ZA;+ZM;+AZ;+AS	0,12	0,50	1,40	0,03	0,025	0,15	0,015	0,09		300-380	380-480	23
HX340LAD	+Z;+ZA;+ZM;+AZ;+AS	0,12	0,50	1,40	0,03	0,025	0,15	0,015	0,10		340-420	410-510	21
HX380LAD	+Z;+ZA;+ZM;+AZ;+AS	0,12	0,50	1,50	0,03	0,025	0,15	0,015	0,10		380-480	440-560	19
HX420LAD	+Z;+ZA;+ZM;+AZ;+AS	0,12	0,50	1,60	0,03	0,025	0,15	0,015	0,10		420-520	470-590	17
HX460LAD	+Z;+ZA;+ZM;+AZ;+AS	0,15	0,50	1,70	0,03	0,025	0,15	0,015	0,10		460-560	500-640	15
HX500LAD	+Z;+ZA;+ZM;+AZ;+AS	0,15	0,50	1,70	0,03	0,025	0,15	0,015	0,10		500-620	530-690	13

^{a)} By agreement upon inquiry and ordering, the Ti content for the steel grades mentioned in this table can be reduced to <0.05%, meaning that the steel grade is unalloyed.

SUPPLY CONDITIONS

PACKAGING

The material is available in strips/coils, strapped with bands of steel and, in the case of shaped sheets, in bundles wrapped in protective film. To facilitate the handling of bundles (loading/unloading), they are supported by wooden beams.

LABELING

Each strip/coil/bundle is supplied with a label, ensuring proper identification of the product and its traceability.

CERTIFICATE

Each order will be accompanied by the corresponding inspection certificate according to EN 10204, in accordance with the product's applicable standard.

SUPPLY OPTIONS

SPECIAL TOLERANCES

THICKNESS, LENGTH AND WIDTH:

This product is supplied with thickness, width, and length tolerances (in the case of shaped sheets) in accordance with the applicable standard. Special tolerances may be available upon request. Edge trimming possible.

STEEL GRADES:

The possibility of supplying other steel grades not mentioned above can be evaluated upon request.

COATINGS AND SURFACE TREATMENTS

The products are supplied in accordance with the applicable standards, with the possibility of additional treatments/coatings as previously requested at the time of the inquiry/order, under the customer's responsibility.

LABORATORY TESTS

Possibility of requesting specific laboratory tests, not foreseen in the applicable standard (anisotropy, salt fog, metallography, thickness elongation, among others)

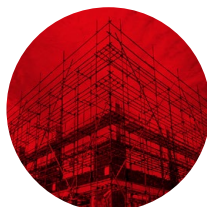
WRAPPING AND PACKAGING

The strips/coils/bundles can be configured according to the client's specifications, as requested at the time of the inquiry/order. Possibility of using packaging with anticorrosion protection (VCI).

APPLICATION AREAS



INDUSTRY



CONSTRUCTION



ENERGY



ENGINEERING
AND ARCHITECTURE