




## Electrolytically galvanized sheet

Delivery range in mm	Coils 	Slit strips 	Cut-to-length sheets 
Thickness	0,4 - 4	0,4 - 4	0,4 - 4
Width	400 - 1650	30 - 1650	200 - 1650
Length	N/A	N/A	220 - 6000

Tolerances for straps and sheets: EN 10131. Other tolerances and special edge shapes are available by agreement.






Soft grades – Electrolytically galvanized cold-rolled flat products of steels EN 10152 : 2017

Chemical composition (melt analysis)							
Steel grade/type		Symbol for the type of surface finishing	C max. %	P max. %	S max. %	Mn max. %	Ti max. %
Code	Material no.						
DC01	1.0330	+ZE	0.12	0.045	0.045	0.60	–
DC03	1.0347	+ZE	0.10	0.035	0.035	0.45	–
DC04	1.0338	+ZE	0.08	0.030	0.030	0.40	–
DC05	1.0312	+ZE	0.06	0.025	0.025	0.35	–
DC06	1.0873	+ZE	0.02	0.020	0.020	0.25	0.3
DC07	1.0898	+ZE	0.01	0.020	0.020	0.20	0.2

Mechanical properties							
Steel grade/type		Symbol for the type of surface finishing	R <sub>e</sub> <sup>1)</sup>	R <sub>m</sub>	A <sub>80</sub> <sup>2)</sup>	r <sub>90</sub> <sup>3)4)</sup>	n <sub>90</sub> <sup>3)</sup>
Code	Material no.						
DC01	1.0330	+ZE	-/280	270 – 410	28	–	–
DC03	1.0347	+ZE	-/240	270 – 370	34	1.3	–
DC04	1.0338	+ZE	-/220	270 – 350	37	1.6	0.170
DC05	1.0312	+ZE	-/200	270 – 330	39	1.9	0.190
DC06	1.0873	+ZE	-/180	270 – 350	41	2.1	0.210
DC07	1.0898	+ZE	-/160	250 – 310	43	2.5	0.220

1) For products with no clear yield point, the values for the 0.2 % elongation limit (R<sub>eL</sub>), are taken as those for the yield point. For other products, those for the lower yield point (R<sub>eL</sub>) apply. For thicknesses of ≤ 0.70 mm, but > 0.50 mm, a 20 MPa higher maximum yield point value is permissible. For thicknesses ≤ 0.50 mm, a higher maximum yield point value of 40 MPa is permissible.  
 2) For thicknesses of ≤ 0.70 mm, but > 0.50 mm, the minimum values for fracture elongation are reduced by 2 units, for thicknesses of ≤ 0.50 mm by 4 units.  
 3) The r<sub>90</sub>- and n<sub>90</sub>-value, determined in acc. with 7.5.2.3, only apply for product thicknesses of > 0.50 mm.  
 4) For thickness > 2 mm, the r<sub>90</sub>-value is reduced by 0.2.

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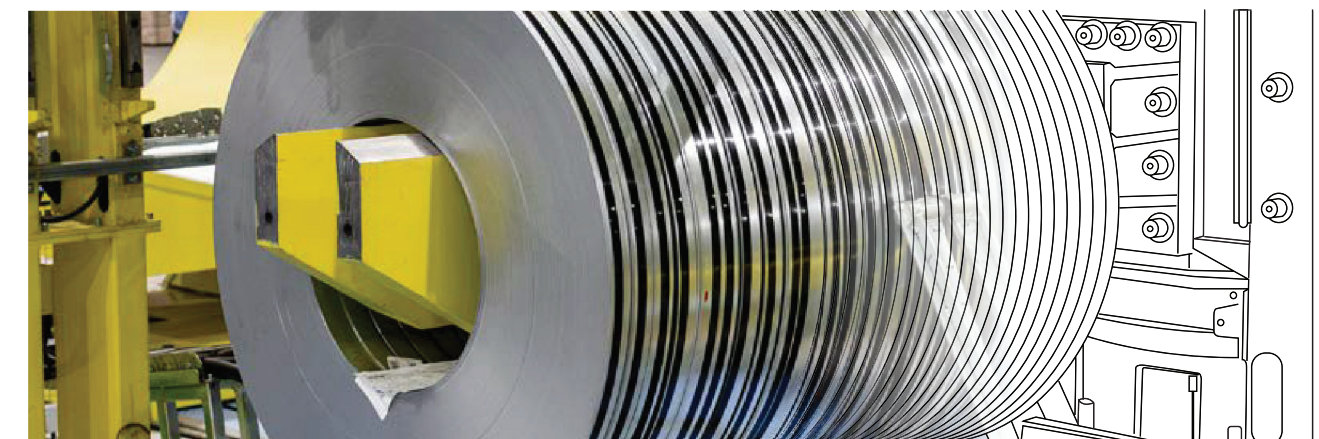
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Microalloyed grades – Cold-rolled flat products with high yield point for cold forming made of microalloyed steels EN 10268 : 2013. With additional coating specifications, this standard also applies for electrolytically galvanized flat products, e.g. H240LA + ZE 75/75

Chemical composition (melt analysis)									
Steel grade/type		Chemical composition Percentage by mass							
Code	Material no.	C max. %	Si max. %	Mn max. %	P max. %	S max. %	Al <sub>total</sub> min. %	Ti max. %	Nb max. %
HC180Y	1.0922	0.01	0.3	0.7	0.06	0.025	0.01	0.12	0.09
HC180B	1.0395	0.06	0.5	0.7	0.06	0.030	0.015		
HC220Y	1.0925	0.01	0.3	0.9	0.08	0.025	0.01	0.12	0.09
HC220I	1.0346	0.07	0.5	0.6	0.05	0.025	0.015	0.05	
HC220B	1.0396	0.08	0.5	0.7	0.085	0.030	0.015		
HC260Y	1.0928	0.01	0.3	1.6	0.1	0.025	0.01	0.12	0.09
HC260I	1.0349	0.07	0.5	1.2	0.05	0.025	0.015	0.05	
HC260B	1.0400	0.10	0.5	1.0	0.1	0.030	0.015		
HC260LA	1.0480	0.10	0.5	1.0	0.030	0.025	0.015	0.15	0.09
HC300I	1.0447	0.08	0.5	0.7	0.08	0.025	0.015	0.05	
HC300B	1.0444	0.10	0.5	1.0	0.12	0.030	0.015		
HC300LA	1.0489	0.12	0.5	1.4	0.030	0.025	0.015	0.15	0.09
HC340LA	1.0548	0.12	0.5	1.5	0.030	0.025	0.015	0.15	0.09
HC380LA	1.0550	0.12	0.5	1.6	0.030	0.025	0.015	0.15	0.09
HC420LA	1.0556	0.14	0.5	1.6	0.030	0.025	0.015	0.15	0.09
HC460LA	1.0574	0.14	0.6	1.8	0.030	0.025	0.015	0.15	0.05
HC500LA	1.0573	0.14	0.6	1.8	0.030	0.025	0.015	0.15	0.09






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Mechanical properties (lat.)								
Steel grade/type		Elongation limit 0.2 %	Higher yield point through heat treatment <sup>2)</sup>	Tensile strength	Fracture elongation <sup>3)</sup>	Vertical anisotropy	Vertical anisotropy <sup>1)2)4)</sup>	Work hardening exponent <sup>4)</sup>
Code	Material no.	$R_{p0.2}^{1)}$ N/mm <sup>2</sup>	$BH_2N/mm^2$	$R_m$ N/mm <sup>2</sup>	$A_{90}$ min. lat %	r max. lat	r max. lat	n min. lat
HC180Y	1.0922	180 - 230	35	330 - 400	35		1.7	0.19
HC180B	1.0395	180 - 230		290 - 360	34		1.6	0.17
HC220Y	1.0925	220 - 270		340 - 420	33		1.6	0.18
HC220I	1.0346	220 - 270	35	300 - 380	34	1.4		0.18
HC220B	1.0396	220 - 270		320 - 400	32		1.5	0.16
HC260Y	1.0928	260 - 320		380 - 440	31		1.4	0.17
HC260I	1.0349	260 - 310	35	320 - 400	32	1.4	-	0.17
HC260B	1.0400	260 - 320		360 - 440	29		-	
HC260LA	1.0480	260 - 330		350 - 430	26		0.15	
HC300I	1.0447	300 - 350	35	340 - 440	30	1.4	-	0.16
HC300B	1.0444	300 - 360	-	390 - 480	26		-	
HC300LA	1.0489	300 - 380	30	380 - 480	23		-	
HC340LA	1.0548	340 - 420	-	410 - 510	21		-	
HC380LA	1.0550	380 - 480	-	440 - 580	19		-	
HC420LA	1.0556	420 - 520	-	470 - 600	17		-	
HC460LA	1.0574	460 - 580	-	510 - 660	13		-	
HC500LA	1.0573	500 - 620	-	550 - 710	12		-	



### Explanation and offer of coating and surfaces

Surfaces		
03	Normal surface	A
05	Best surface	B

### Subsequent processing

- P = Phosphatized
- PC = Phosphatized and chemically passivated
- PCO = Phosphatized, chemically passivated and oiled
- PO = Phosphatized and oiled
- S = Sealed
- C = Chemically passivated
- CO = Chemically passivated and oiled
- O = oiled

Coating				
Plating, zinc Description	Nominal zinc layer on each side		Minimum zinc layer on each side	
	Thicknes $\mu$ m	Weight g/m <sup>2</sup>	Thicknes $\mu$ m	Weight g/m <sup>2</sup>
Two-sided				
ZE 25/25	2.5	18	1.7	12
ZE 50/50	5.0	36	4.1	29
ZE 75/75	7.5	54	6.6	47
ZE 100/100	10.0	72	9.1	65
One-sided				
ZE 25/0	2.5	18	1.7	12
ZE 50/0	5.0	36	4.1	29
ZE 75/0	7.5	54	6.6	47
ZE 100/0	10.0	72	9.1	65

Coating type (AA)	Sheet side A	Sheet side B
.51	5 $\mu$ m zinc with organic coating*	as sheet side A
.68	7,5 $\mu$ m zinc with organic coating*	7,5 $\mu$ m zinc without organic coating and without pre-phosphatizing

\* Organic coating: GRANOCOAT ZE, GARDO PROTECT

1) If a yield point is pronounced, the values for the lower yield point ( $R_p$ ) apply.  
 2) For thicknesses > 1.2 mm, special arrangements must be made.  
 3) For thicknesses  $\leq$  0.7 mm, but > 0.5 mm, minimum values for breaking elongation of two units lower are permissible.  
 4) The minimum values for r (lat.) and n (lat.) only apply to product thicknesses > 0.5 mm.  
 5) For product thicknesses > 2 mm, the  $r_{90}$ -value is reduced by 0.2.

