LOW CARBON STEELS COATED WITH CONTINUOUS HOT DIPPED ZINC FOR COLD FORMING

Line No	EN 10346	QUALITY	Type of Hot Dip Coating	Chemical Composition [%] Max						Yield Stress [N/mm²]	Drawing Stress [N/mm²]	Stretching Amount [%] Min				r-value min			n-value min
				C	Si	Mn	P	S	Ti			e ≤ 0,35	0,35 < e ≤ 0,5	0,5 < e ≤ 0,7	0,7 < e	e ≤ 1,50	1,5 < e < 2,0	2,00 ≤ e	
1	DX51D	Tilting and Profile Quality	Z	0,18		1,20	0,12			*	270 - 500	15	18	20	22	-	-	-	-
2	DX52D	Drawing Quality	Z							140 - 300	270 - 420	19	22	24	26	-	-	-	-
3	DX53D	Deep Drawing Quality	Z							140 - 260	270 - 380	23	26	28	30	-	-	-	-
4	DX54D	Special Deep Drawing Quality	Z	0,12	0,50	0,60	0,10	0,045	0,30	120 - 220	260 - 350	29	32	34	36	1,6	1,4	1,2	0,18
6	DX56D	Extra Deep Drawing Quality	Z							120 - 180	260 - 350	32	35	37	39	1,9	1,7	1,5	0,21
7	DX57D	Super Deep Drawing Quality	Z							120 - 270	260 - 350	34	37	39	41	2,1	1,9	1,7	0,22

*** VERTICAL TESTING IS MADE TOWARDS ROLLING

CONSTRUCTION STEEL COATED WITH CONTINUOUS HOT DIPPED ZINC

Line No	EN 10346	Type of Hot Dip Coating	Chemical Composition (%) Max					Yield Stress (N/mm^2) Min.	Breaking Stress (N/mm^2) Min.	Stretching Amount (%) Min			
			C	Si	Mn	P	S			e ≤ 0,35	0,35 < e ≤ 0,5	0,5 < e ≤ 0,7	0,7 < e
1	S220GD	Z	0,20	0,60	1,70	0,10	0,045	220	300	13	16	18	20
2	S250GD	Z						250	330	12	15	17	19
3	S280GD	Z						280	360	11	14	16	18
4	S320GD	Z						320	390	10	13	15	17
5	S350GD	Z						350	420	9	12	14	16
6	S390GD	Z						390	460	9	12	14	16
7	S420GD	Z						420	480	8	11	13	15
8	S450GD	Z						450	510	7	10	12	14
9	S550GD	Z						550	560	-	-	-	-

*** TESTING IS MADE TOWARDS ROLLING

STEELS WITH HIGH YIELD STRENGTH COATED WITH CONTINUOUS HOT DIPPED ZINC FOR COLD FORMING (TS EN 10346)

Line No	Short Definition	Type of Hot Dip Coating	Chemical Composition (%) Max								Yield Stress (N/mm²)	Breaking Stress (N/mm²)	Stretching Amount (%) Min		
			C	Si	Mn	P	S	Al_{top}	Nb	Ti			e ≤ 0,5	0,5 < e ≤ 0,7	0,7 < e
1	HX160YD	Z	0,010	0,15	0,70	0,06	0,025	≤0,1	0,09	0,012	160 - 120	300 - 360	33	35	37
2	HX180YD	Z	0,010	0,20	0,70	0,06	0,025	≤0,1	0,09	0,012	180 - 240	330 - 390	30	32	34
3	HX180BD	Z	0,100	0,50	0,70	0,06	0,025	≤0,1	0,09	0,012	180 - 240	290 - 360	30	32	34
4	HX220YD	Z	0,010	0,20	0,90	0,08	0,025	≤0,1	0,09	0,012	220 - 280	340 - 420	28	30	32
5	HX220BD	Z	0,100	0,50	0,70	0,08	0,025	≤0,1	0,09	0,012	220 -280	320 - 400	28	30	32
6	HX260YD	Z	0,010	0,25	1,30	0,10	0,025	≤0,1	0,09	0,012	260 - 320	380 - 440	26	28	30
7	HX260BD	Z	0,100	0,50	0,80	0,10	0,025	≤0,1	0,09	0,012	260 - 320	360 - 440	24	26	28
8	HX260LAD	Z	0,110	0,50	0,60	0,03	0,025	≤0,015	0,09	0,012	260 - 330	350 - 430	22	24	26
9	HX300YD	Z	0,015	0,30	1,60	0,10	0,025	≤0,1	0,09	0,012	300 - 360	390 - 470	23	25	27
10	HX300BD	Z	0,110	0,50	0,80	0,12	0,025	≤0,1	0,09	0,012	300 - 360	400 - 480	22	24	26
11	HX300LAD	Z	0,110	0,50	1,00	0,03	0,025	≤0,1	0,09	0,015	300 - 380	380 - 480	19	21	23
12	HX340BD	Z	0,110	0,50	0,80	0,12	0,025	≤0,1	0,09	0,015	340 - 400	440 - 520	20	22	24
13	HX340LAD	Z	0,110	0,50	1,00	0,03	0,025	≤0,015	0,09	0,015	340 - 420	410 - 510	17	19	21
14	HX380LAD	Z	0,110	0,50	1,40	0,03	0,025	≤0,015	0,09	0,015	380 - 480	440 - 560	15	17	19
15	HX420LAD	Z	0,110	0,50	1,40	0,03	0,025	≤0,015	0,09	0,015	420 - 520	470 - 590	13	15	17
16	HX460LAD	Z	0,150	0,50	1,70	0,03	0,025	≤0,015	0,09	0,015	460 - 560	500 - 640	11	13	15
17	HX500LAD	Z	0,150	0,50	1,70	0,03	0,025	≤0,015	0,09	0,015	500 - 620	530 - 620	9	11	13

MULTIPHASE STEELS COATED WITH CONTINUOUS HOT DIPPED ZINC FOR COLD FORMING (TS EN 10346)

DP STEELS

Line No	Short Definition	Type of Hot Dip Coating	Chemical Composition (%) Max										Yield Stress (N/mm²)	Breaking Stress (N/mm²) Min.	Stretching Amount (%) Min		
			C	Si	Mn	P	S	Al_{top}	Cr+Mo	Nb+Ti	V	B			e ≤ 0,5	0,5 < e ≤ 0,7	0,7 < e
1	HCT450X	Z	0,140	0,80	2,00	0,08	0,015	≤2,00	1,00	0,15	0,20	0,005	260 - 340	450	15	17	27
2	HCT500X	Z											300 - 380	500	19	21	23
3	HCT600X	Z	0,170		2,20								340 - 420	600	16	18	20
4	HDT580X	Z											330 - 460	580	15	17	19
5	HCT780X	Z	0,180		2,50								450 - 560	780	10	12	14
6	HCT980X	Z	0,230										600 - 750	980	6	8	10

Galvanized Materials

GCR

Product Code	Quality (EN 10346)	Coating (gr/m²)	Thickness (mm)	Width (mm)	Surface (EN 10346)	Passivation
GCR	DX51D DX52D DX53D DX54D S220GD S250GD	60 ≤ k < 180	0,25 < t ≤ 0,30	800 ≤ w ≤ 1200	A veya B	C, O veya CO
			0,30 < t ≤ 0,47	800 ≤ w ≤ 1300	A veya B	C, O veya CO
			0,47 < t ≤ 3,00	800 ≤ w ≤ 1550	A veya B	C, O veya CO
		180 ≤ k ≤ 350	0,25 < t ≤ 0,30	800 ≤ w ≤ 1200	A veya B	C, O veya CO
			0,30 < t ≤ 0,47	800 ≤ w ≤ 1300	A veya B	C, O veya CO
			0,47 < t ≤ 1,20	800 ≤ w ≤ 1550	A veya B	C, O veya CO
			1,20 < t ≤ 3,00	800 ≤ w ≤ 1550	B	C, O veya CO
	S280GD	60 ≤ k < 180	0,49 < t ≤ 3,00	800 ≤ w ≤ 1550	A veya B	C, O veya CO
		180 ≤ k ≤ 350	0,49 < t ≤ 1,20	800 ≤ w ≤ 1550	A veya B	C, O veya CO
			1,20 < t ≤ 3,00	800 ≤ w ≤ 1550	B	C, O veya CO
	S320GD S350GD	60 ≤ k < 180	0,49 < t ≤ 3,00	800 ≤ w ≤ 1550	A veya B	C, O veya CO
		180 ≤ k ≤ 350	0,49 < t ≤ 1,20	800 ≤ w ≤ 1550	A veya B	C, O veya CO
			1,20 < t ≤ 2,00	800 ≤ w ≤ 1550	B	C, O veya CO

** Please contact our Quality Department for requests that are not included in the table.*

GHR-GTP

Product Code	Quality (EN 10346)	Coating (gr/m²)	Thickness (mm)	Width (mm)	Surface (EN 10346)	Passivation
GHR - GTP	DX51D	60 ≤ k ≤ 350	2,00 ≤ t ≤ 3,00	800 ≤ w ≤ 1550	B	C, O veya CO
	DX52D					C, O veya CO
	DX53D					C, O veya CO
	DX54D					C, O veya CO
	S220GD					C, O veya CO
	S250GD					C, O veya CO
	S280GD					C, O veya CO
	S320GD					C, O veya CO
	S350GD					C, O veya CO

** Please contact our Quality Department for requests that are not included in the table.*