

**Właściwości mechaniczne dla blach zimnowalcowanych / Mechanical properties for Cold Rolled Steel**

Norma: EN 10130	Grubość / Thickness (mm)	R <sub>e</sub> (MPa)	R <sub>m</sub> (MPa)	A <sub>80</sub> (%)	MP gwarancja / guarantees (m-c)	r 90	n 90
DC01	0.30 - 0.50	140 - 320	270 - 410	≥ 24	-	-	-
	0.50 - 0.70	140 - 300	270 - 410	≥ 26	-	-	-
	0.70 - 3.00	140 - 280	270 - 410	≥ 28	-	-	-
DC03	0.30 - 0.50	140 - 280	270 - 370	≥ 30	≥ 6	-	-
	0.50 - 0.70	140 - 260	270 - 370	≥ 32	≥ 6	≥ 1.3	-
	0.70 - 2.00	140 - 240	270 - 370	≥ 34	≥ 6	≥ 1.3	-
DC04	2.00 - 3.00	140 - 240	270 - 370	≥ 34	≥ 6	≥ 1.1	-
	0.30 - 0.50	140 - 250	270 - 350	≥ 34	≥ 6	-	-
	0.50 - 0.70	140 - 230	270 - 350	≥ 36	≥ 6	≥ 1.6	≥ 0.180
DC05	0.70 - 2.00	140 - 210	270 - 350	≥ 38	≥ 6	≥ 1.6	≥ 0.180
	2.00 - 3.00	140 - 210	270 - 350	≥ 38	≥ 6	≥ 1.4	≥ 0.180
	0.30 - 0.50	140 - 220	270 - 330	≥ 36	≥ 6	-	-
DC06	0.50 - 0.70	140 - 200	270 - 330	≥ 38	≥ 6	≥ 1.9	≥ 0.200
	0.70 - 2.00	140 - 180	270 - 330	≥ 40	≥ 6	≥ 1.9	≥ 0.200
	2.00 - 3.00	140 - 180	270 - 330	≥ 40	≥ 6	≥ 1.7	≥ 0.200
DC07	0.30 - 0.50	120 - 210	270 - 330	≥ 37	≥ 6	-	-
	0.50 - 0.70	120 - 190	270 - 330	≥ 39	≥ 6	≥ 2.1	≥ 0.220
	0.70 - 2.00	120 - 170	270 - 330	≥ 41	≥ 6	≥ 2.1	≥ 0.220
DC08	2.00 - 3.00	120 - 170	270 - 330	≥ 41	≥ 6	≥ 1.9	≥ 0.220
	0.50 - 0.70	100 - 170	250 - 310	≥ 42	≥ 6	≥ 2.5	≥ 0.230
	0.70 - 2.00	100 - 150	250 - 310	≥ 44	≥ 6	≥ 2.5	≥ 0.230
2.00 - 3.00	100 - 150	250 - 310	≥ 44	≥ 6	≥ 2.3	≥ 0.230	

Norma: EN 10209	Grubość / Thickness (mm)	R <sub>e</sub> (MPa)	R <sub>m</sub> (MPa)	A <sub>80</sub> (%)	r średnia / average	r 90	n 90
DC01EK	0.40 - 0.50	140 - 310	270 - 390	≥ 26	-	-	-
	0.50 - 0.70	140 - 290	270 - 390	≥ 28	-	-	-
	0.70 - 3.00	140 - 270	270 - 390	≥ 30	-	-	-
DC04EK	0.40 - 0.50	140 - 260	270 - 350	≥ 32	-	-	-
	0.50 - 0.70	140 - 240	270 - 350	≥ 34	-	-	-
	0.70 - 3.00	140 - 220	270 - 350	≥ 36	-	-	-
DC05EK	0.70 - 3.00	140 - 220	270 - 350	≥ 36	≥ 1.5	-	-
DC06EK	0.40 - 0.50	120 - 230	270 - 350	≥ 36	-	-	-
	0.50 - 0.70	120 - 210	270 - 350	≥ 38	≥ 1.6	-	-
	0.70 - 2.00	120 - 190	270 - 350	≥ 38	≥ 1.6	-	-
2.00 - 3.00	120 - 190	270 - 350	≥ 38	≥ 1.4	-	-	

Norma: EN 10268	Grubość / Thickness (mm)	R <sub>e</sub> (MPa)	R <sub>m</sub> (MPa)	A <sub>80</sub> (%)
HC260LA	0.50 - 0.70	260 - 330	350 - 430	≥ 24
HC260LA	0.70 - 3.00	260 - 330	350 - 430	≥ 26
HC300LA	0.50 - 0.70	300 - 380	380 - 480	≥ 21
HC300LA	0.70 - 3.00	300 - 380	380 - 480	≥ 23
HC340LA	0.50 - 0.70	340 - 420	410 - 510	≥ 19
HC340LA	0.70 - 3.00	340 - 420	410 - 510	≥ 21
HC380LA	0.50 - 0.70	380 - 480	440 - 580	≥ 17
HC380LA	0.70 - 3.00	380 - 480	440 - 580	≥ 19
HC420LA	0.50 - 0.70	420 - 520	470 - 600	≥ 15
HC420LA	0.70 - 3.00	420 - 520	470 - 600	≥ 17
HC460LA	0.50 - 0.70	460 - 580	510 - 660	≥ 11
HC460LA	0.70 - 2.00	460 - 580	510 - 660	≥ 13
HC500LA	0.50 - 0.70	500 - 620	550 - 710	≥ 10
HC500LA	0.70 - 2.00	500 - 620	550 - 710	≥ 12

**Skład chemiczny dla blach zimnowalcowanych / Chemical composition for Cold Rolled Steel**

Norma: EN 10130	C (%)	Mn (%)	P (%)	S (%)	Si (%)	Al (%)	Ti (%)
DC01	≤ 0.120	≤ 0.60	≤ 0.045	≤ 0.045	-	-	-
DC03	≤ 0.100	≤ 0.45	≤ 0.035	≤ 0.035	-	-	-
DC04	≤ 0.080	≤ 0.40	≤ 0.030	≤ 0.030	-	-	-
DC05	≤ 0.060	≤ 0.35	≤ 0.025	≤ 0.025	-	-	-
DC06	≤ 0.020	≤ 0.25	≤ 0.020	≤ 0.020	-	-	≤ 0.300
DC07	≤ 0.010	≤ 0.20	≤ 0.020	≤ 0.020	-	-	≤ 0.200

Norma: EN 10209	C (%)	Mn (%)	P (%)	S (%)	Si (%)	Al (%)	Ti (%)
DC01EK	≤ 0.080	≤ 0.60	≤ 0.045	≤ 0.050	-	-	-
DC04EK	≤ 0.080	≤ 0.50	≤ 0.030	≤ 0.050	-	-	-
DC05EK	≤ 0.080	≤ 0.50	≤ 0.025	≤ 0.050	-	-	-
DC06EK	≤ 0.020	≤ 0.50	≤ 0.020	≤ 0.050	-	-	≤ 0.200

Norma: EN 10268	C (%)	Mn (%)	P (%)	S (%)	Si (%)	Al (%)	Ti (%)	Nb (%)
HC260LA	≤ 0.10	≤ 1.0	≤ 0.030	≤ 0.025	≤ 0.5	≥ 0.015	≤ 0.15	≤ 0.09
HC300LA	≤ 0.12	≤ 1.4	≤ 0.030	≤ 0.025	≤ 0.5	≥ 0.015	≤ 0.15	≤ 0.09
HC340LA	≤ 0.12	≤ 1.5	≤ 0.030	≤ 0.025	≤ 0.5	≥ 0.015	≤ 0.15	≤ 0.09
HC380LA	≤ 0.12	≤ 1.6	≤ 0.030	≤ 0.025	≤ 0.5	≥ 0.015	≤ 0.15	≤ 0.09
HC420LA	≤ 0.14	≤ 1.6	≤ 0.030	≤ 0.025	≤ 0.5	≥ 0.015	≤ 0.15	≤ 0.09
HC460LA	≤ 0.14	≤ 1.8	≤ 0.030	≤ 0.025	≤ 0.6	≥ 0.015	≤ 0.15	≤ 0.09
HC500LA	≤ 0.14	≤ 1.8	≤ 0.030	≤ 0.025	≤ 0.6	≥ 0.015	≤ 0.15	≤ 0.09