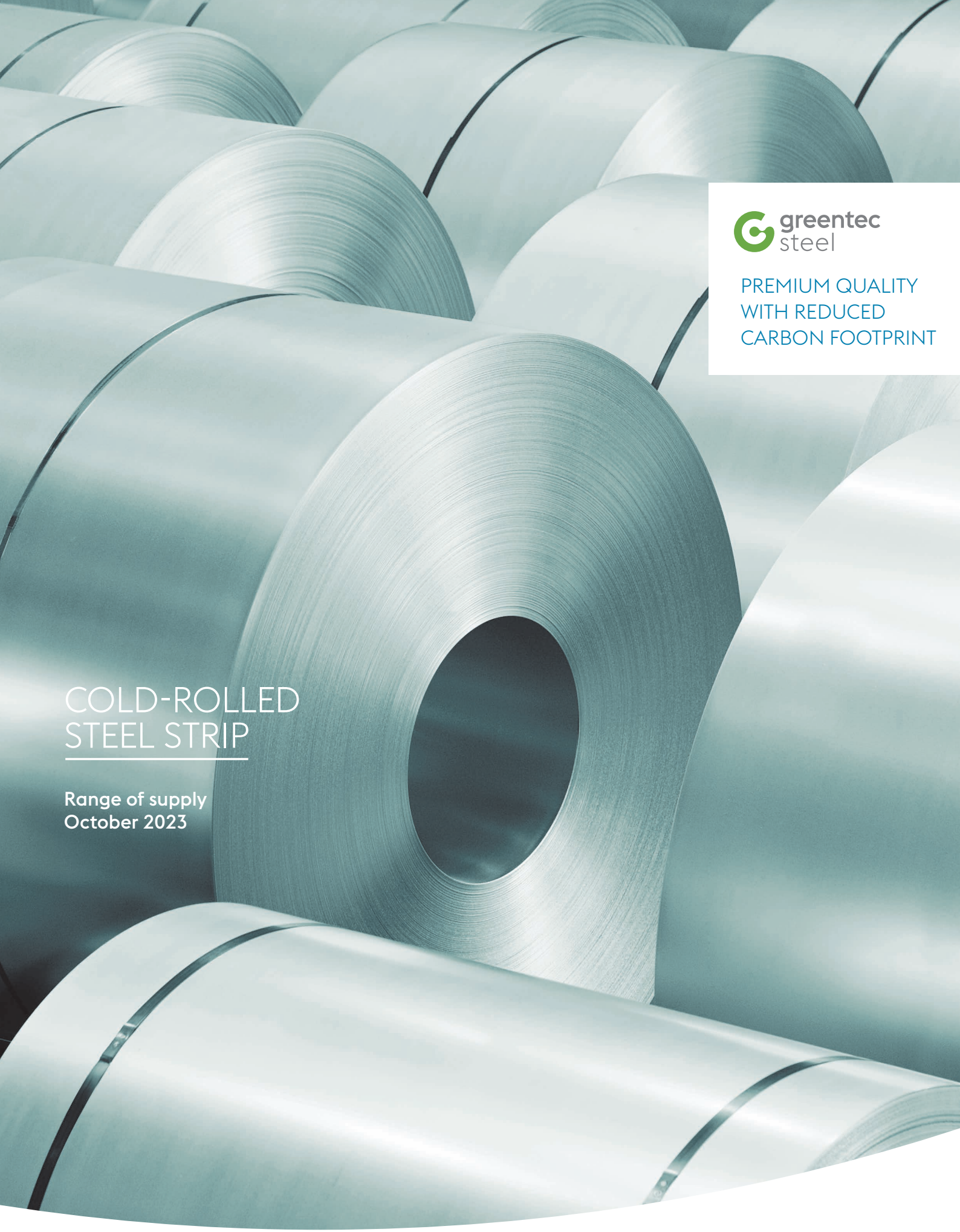

greentec steel

PREMIUM QUALITY
WITH REDUCED
CARBON FOOTPRINT

COLD-ROLLED STEEL STRIP

Range of supply
October 2023

voestalpine Steel Division
www.voestalpine.com/steel

voestalpine
ONE STEP AHEAD.

Steel grade	Norms and specifica-tions	Test dir.	Yield strength $R_{p0.2}$ [MPa]	Tensile strength R_m [MPa]	Total elong. A_{80} min. [%]	r value min. [-]	n value min. [-]	BH_2 min. [MPa]	Exposed
Mild steels									
EN 10130			R_e	R_m	A_{80}	r_{90}	n_{90}	BH_2	E
DC01	EN 10130	Trans.	140 - 280	270 - 410	28	-	-	-	√
DC03	EN 10130	Trans.	140 - 240	270 - 370	34	1.3	-	-	√
DC04	EN 10130	Trans.	140 - 210	270 - 350	38	1.6	0.18	-	√
DC05	EN 10130	Trans.	140 - 180	270 - 330	40	1.9	0.20	-	√
DC06	EN 10130	Trans.	120 - 170	270 - 330	41	2.1	0.22	-	√
DC07	EN 10130	Trans.	100 - 150	250 - 310	44	2.5	0.23	-	√
VDA 239-100 and voestalpine special grade			$R_{p0.2}$	R_m	A_{80}	r_{90}	$n_{10-20/Ag}$	BH_2	E
CR1	VDA 239-100	Trans.	140 - 300	270 - 410	28	-	-	-	√
CR2	VDA 239-100	Trans.	140 - 240	270 - 370	34	1.3	0.16	-	√
CR3	VDA 239-100	Trans.	140 - 210	270 - 350	38	1.8	0.18	-	√
CR4	VDA 239-100	Trans.	140 - 180	270 - 330	39	1.9	0.20	-	√
CR5	VDA 239-100	Trans.	110 - 170	260 - 330	41	2.1	0.22	-	√
CR6	voestalpine	Trans.	110 - 170	250 - 330	43	2.3	0.23	-	√
Structural steels									
DIN 1623			$R_{p0.2}$	R_m	A_{80}	r_{90}	$n_{10-20/Ag}$	BH_2	E
S215G	DIN 1623	Trans.	≥ 215	360 - 510	20	-	-	-	-
Enameling steels									
EN 10209 and voestalpine special grade			R_e	R_m	A_{80}	r	$n_{10-20/Ag}$	BH_2	E
DC01EK	EN 10209	Trans.	140 - 270	270 - 390	30	-	-	-	-
DC04EK	EN 10209	Trans.	140 - 220	270 - 350	36	-	-	-	-
DC05EK	EN 10209	Trans.	140 - 220	270 - 350	36	1.5	-	-	-
DC06EK	EN 10209	Trans.	120 - 190	270 - 350	38	1.6	-	-	-
DC03ED TiVac	voestalpine	Trans.	140 - 220	270 - 370	34	1.4	-	-	-
DC04ED TiVac	voestalpine	Trans.	140 - 200	270 - 350	38	-	-	-	-

Steel grade	Norms and specifica-tions	Test dir.	Yield strength $R_{p0.2}$ [MPa]	Tensile strength R_m [MPa]	Total elong. A_{80} min. [%]	r value min. [-]	n value min. [-]	BH_2 min. [MPa]	Exposed
Micro-alloyed steels									
EN 10268			$R_{p0.2}$	R_m	A_{80}	r_{90}	n_{90}	BH_2	E
HC260LA	EN 10268	Trans.	260 - 330	350 - 430	26	-	-	-	-
HC300LA	EN 10268	Trans.	300 - 380	380 - 480	23	-	-	-	-
HC340LA	EN 10268	Trans.	340 - 420	410 - 510	21	-	-	-	-
HC380LA	EN 10268	Trans.	380 - 480	440 - 580	19	-	-	-	-
HC420LA	EN 10268	Trans.	420 - 520	470 - 600	17	-	-	-	-
HC460LA	EN 10268	Trans.	460 - 580	510 - 660	13	-	-	-	-
HC500LA	EN 10268	Trans.	500 - 620	550 - 710	12	-	-	-	-
VDA 239-100 and voestalpine special grade			$R_{p0.2}$	R_m	A_{80}	r_0	$n_{10\text{-}20/Ag}$	BH_2	E
CR210LA	VDA 239-100	Long.	210 - 300	310 - 410	29	1.0	0.15	-	-
CR240LA	VDA 239-100	Long.	240 - 320	320 - 430	27	-	0.15	-	-
CR270LA	VDA 239-100	Long.	270 - 350	350 - 460	25	-	0.14	-	-
CR300LA	VDA 239-100	Long.	300 - 380	380 - 490	23	-	0.14	-	-
CR340LA	VDA 239-100	Long.	340 - 430	410 - 530	21	-	0.12	-	-
CR380LA	VDA 239-100	Long.	380 - 470	450 - 570	19	-	0.12	-	-
CR420LA	VDA 239-100	Long.	420 - 520	480 - 600	17	-	0.11	-	-
CR460LA	VDA 239-100	Long.	460 - 580	520 - 680	15	-	0.10	-	-
CR800LA	voestalpine	Long.	800 - 950	830 - 1030	9	-	-	-	-

Steel grade	Norms and specifica-tions	Test dir.	Yield strength $R_{p0.2}$ [MPa]	Tensile strength R_m [MPa]	Total elong. A_{80} min. [%]	r value min. [-]	n value min. [-]	BH_2 min. [MPa]	Exposed
Bake-hardening steels									
EN 10268			$R_{p0.2}$	R_m	A_{80}	r_{90}	n_{90}	BH_2	E
HC180B	EN 10268	Trans.	180 - 230	290 - 360	34	1.6	0.17	35	√
HC220B	EN 10268	Trans.	220 - 270	320 - 400	32	1.5	0.16	35	√
HC260B	EN 10268	Trans.	260 - 320	360 - 440	29	-	-	35	√
HC300B	EN 10268	Trans.	300 - 360	390 - 480	26	-	-	35	-
VDA 239-100			$R_{p0.2}$	R_m	A_{80}	r_0	$n_{10\text{-}20/Ag}$	BH_2	E
CR180BH	VDA 239-100	Long.	180 - 240	290 - 370	34	1.1	0.17	20/30	√
CR210BH	VDA 239-100	Long.	210 - 270	320 - 400	32	1.1	0.16	20/30	√
CR240BH	VDA 239-100	Long.	240 - 300	340 - 440	29	1.0	0.15	20/30	√
CR270BH	VDA 239-100	Long.	270 - 330	360 - 460	27	-	0.13	20/30	-
High-strength LC steels									
Special voestalpine grade			$R_{p0.2}$	R_m	A_{80}	r_{90}	$n_{10\text{-}20/Ag}$	BH_2	E
HC180LC	voestalpine	Trans.	180 - 270	300 - 390	32	-	-	-	√
HC200LC	voestalpine	Trans.	200 - 290	310 - 400	31	-	-	-	√
HC220LC	voestalpine	Trans.	220 - 310	320 - 410	30	-	-	-	√

Steel grade	Norms and specifica-tions	Test dir.	Yield strength $R_{p0.2}$ [MPa]	Tensile strength R_m [MPa]	Total elong. A_{80} min. [%]	r value min. [-]	n value min. [-]	BH_2 min. [MPa]	Exposed
High-strength IF steels									
EN 10268			$R_{p0.2}$	R_m	A_{80}	r_{90}	n_{90}	BH_2	E
HC180Y	EN 10268	Trans.	180 - 230	330 - 400	35	1.7	0.19	-	√
HC220Y	EN 10268	Trans.	220 - 270	340 - 420	33	1.6	0.18	-	√
HC260Y	EN 10268	Trans.	260 - 320	380 - 440	31	1.4	0.17	-	√
VDA 239-100			$R_{p0.2}$	R_m	A_{80}	r_0	$n_{10\text{-}20/Ag}$	BH_2	E
CR180IF	VDA 239-100	Long.	180 - 240	320 - 400	35	1.2	0.19	-	√
CR210IF	VDA 239-100	Long.	210 - 270	340 - 420	33	1.1	0.18	-	√
CR240IF	VDA 239-100	Long.	240 - 300	360 - 440	31	1.0	0.17	-	√
Carbon-manganese steels									
Special voestalpine grade			$R_{p0.2}$	R_m	A_{80}	r_{90}	$n_{10\text{-}20/Ag}$	BH_2	E
HT440CM	voestalpine	Trans.	280 - 380	≥ 440	25	-	-	-	-
HT590CM	voestalpine	Trans.	420 - 570	≥ 590	14	-	-	-	-

Steel grade	Norms and specifica-tions	Test dir.	Yield strength $R_{p0.2}$ [MPa]	Tensile strength R_m [MPa]	Total elong. A_{80} min. [%]	r value min. [-]	n value min. [-]	BH_2 min. [MPa]	Exposed
Dual-phase steels									
EN 10338			$R_{p0.2}$	R_m	A_{80}	r_{90}	$n_{10\text{-}UE}$	BH_2	E
HCT450X	EN 10338	Long.	260 - 340	≥ 450	27	-	0.16	30	-
HCT490X	EN 10338	Long.	290 - 380	≥ 490	24	-	0.15	30	-
HCT590X	EN 10338	Long.	330 - 430	≥ 590	20	-	0.14	30	-
HCT780X	EN 10338	Long.	440 - 550	≥ 780	14	-	-	30	-
HCT980X	EN 10338	Long.	590 - 740	≥ 980	10	-	-	30	-
VDA 239-100 and voestalpine special grade			$R_{p0.2}$	R_m	A_{80}	r_{90}	$n_{10\text{-}20/Ag}$	BH_2	E
CR260Y450T-DP	voestalpine	Long.	260 - 340	450 - 560	27	-	0.16	30	-
CR290Y490T-DP	VDA 239-100	Long.	290 - 380	490 - 600	24	-	0.15	30	-
CR330Y590T-DP	VDA 239-100	Long.	330 - 430	590 - 700	20	-	0.14	30	-
CR360Y590T-DP	voestalpine	Long.	360 - 460	590 - 700	19	-	0.14	30	-
CR440Y780T-DP	VDA 239-100	Long.	440 - 550	780 - 900	14	-	0.11	30	-
CR500Y780T-DP	voestalpine	Long.	500 - 620	780 - 900	13	-	-	30	-
CR550Y980T-DP	voestalpine	Long.	550 - 730	980 - 1130	10	-	-	30	-
CR590Y980T-DP	VDA 239-100	Long.	590 - 740	980 - 1130	10	-	-	30	-
CR660Y980T-DP	voestalpine	Trans.	660 - 810	980 - 1130	10	-	-	30	-
CR700Y980T-DP	VDA 239-100	Long.	700 - 850	980 - 1130	8	-	-	30	-
Dual-phase high-ductility steels (cold rolled dual-phase steels with improved formability)									
VDA 239-100 and voestalpine special grade			$R_{p0.2}$	R_m	A_{80}	r_{90}	$n_{10\text{-}20/Ag}$	BH_2	E
CR330Y590T-DH	voestalpine	Long.	330 - 430	590 - 700	26	-	0.16	30	-
CR440Y780T-DH	VDA 239-100	Long.	440 - 550	780 - 900	18	-	0.13	30	-
CR700Y980T-DH	VDA 239-100	Long.	700 - 850	980 - 1180	13	-	-	30	-
CR850Y1180T-DH	voestalpine	Long.	850 - 1050	1180 - 1350	13	-	-	30	-

Steel grade	Norms and specifica-tions	Test dir.	Yield strength $R_{p0.2}$ [MPa]	Tensile strength R_m [MPa]	Total elong. A_{80} min. [%]	r value min. [-]	n value min. [-]	BH_2 min. [MPa]	Exposed
Complex-phase steels									
EN 10338			$R_{p0.2}$	R_m	A_{80}	r_{90}	$n_{10\text{-}UE}$	BH_2	E
HCT780C	EN 10338	Long.	570 - 720	≥ 780	10	-	-	30	-
HCT980C	EN 10338	Long.	780 - 950	≥ 980	6	-	-	30	-
VDA 239-100 and voestalpine special grade			$R_{p0.2}$	R_m	A_{80}	r_{90}	$n_{10\text{-}20/Ag}$	BH_2	E
CR570Y780T-CP	VDA 239-100	Long.	570 - 720	780 - 920	10	-	-	30	-
CR660Y780T-CP	voestalpine	Long.	660 - 830	780 - 980	10	-	-	30	-
CR780Y980T-CP	VDA 239-100	Long.	780 - 950	980 - 1140	6	-	-	30	-
CR900Y1180T-CP	VDA 239-100	Long.	900 - 1100	1180 - 1350	5	-	-	30	-
CR950Y1180T-CP	voestalpine	Long.	950 - 1150	1180 - 1350	5	-	-	30	-
Complex-phase steels high-ductility (cold rolled complex-phase steels with improved formability)									
Special voestalpine grade			$R_{p0.2}$	R_m	A_{80}	r_{90}	$n_{10\text{-}UE}$	BH_2	E
CR780Y980T-CH	voestalpine	Long.	780 - 950	980 - 1140	10	-	-	30	-
CR900Y1180T-CH	voestalpine	Long.	900 - 1150	1180 - 1350	7	-	-	30	-
CR1000Y1370T-CH	voestalpine	Long.	1000 - 1250	1370 - 1550	5	-	-	30	-

Steel grade	Norms and specifica-tions	Test dir.	Yield strength $R_{p0.2}$ [MPa]	Tensile strength R_m [MPa]	Total elong. A_{80} min. [%]	r value min. [-]	n value min. [-]	BH_2 min. [MPa]	Exposed
Case-hardening and heat-treatable steels in +LC condition (soft-annealed and lightly rerolled)									
EN 10132			$R_{p0.2}$	R_m	A_{80}	r_{90}	$n_{10\text{-}20/Ag}$	BH_2	E
C10E	EN 10132	Long.	345	430	26	-	-	-	-
C15E	EN 10132	Long.	360	450	25	-	-	-	-
16MnCr5	EN 10132	Long.	420	550	21	-	-	-	-
C22E	EN 10132	Long.	400	500	22	-	-	-	-
C25E	EN 10132	Long.	410	510	21	-	-	-	-
C35E	EN 10132	Long.	430	540	19	-	-	-	-

Steel grade	Norms and specifica-tions	Test dir.	Yield strength $R_{p0.2}$ [MPa]	Tensile strength R_m [MPa]	Total elong. A_{80} min. [%]	r value min. [-]	n value min. [-]	BH_2 min. [MPa]	Exposed
Case-hardening steels in +LC condition (soft-annealed and lightly rerolled)									
Special voestalpine grade (analysis based on standard/Stahlschlüssel [Key to Steel] material database)			$R_{p0.2}$	R_m	A_{80}	r_{90}	$n_{10-20/Ag}$	BH_2	E
22MnB5	voestalpine	Long.	450	650	18	-	-	-	-
27MnB5	voestalpine	Long.	450	650	18	-	-	-	-
34MnB5	voestalpine	Long.	450	650	16	-	-	-	-
Martensitic steels									
VDA 239-100 and voestalpine special grade			$R_{p0.2}$	R_m	A_{80}	r_{90}	n_{10-UE}	BH_2	E
CR860Y1100T-MS	voestalpine	Long.	860 - 1120	1100 - 1320	3	-	-	30	-
CR1030Y1300T-MS	VDA 239-100	Long.	1030 - 1330	1300 - 1550	3	-	-	30	-
Hot-forming steels in +LC condition (soft-annealed and lightly rerolled)									
Special voestalpine grade [1)]			$R_{p0.2}$	R_m	A	r_{90}	$n_{10-20/Ag}$	BH_2	E
phs-uncoated 1500 CR	unhardened	Trans.	300 - 480	480 - 600	18	-	-	-	-
phs-uncoated 1500 CR	hardened*	Trans.	1050	1500	6	-	-	-	-
phs-uncoated 1500 HR	unhardened	Trans.	≥ 280	450 - 750	12	-	-	-	-
phs-uncoated 1500 HR	hardened*	Trans.	1050	1500	6	-	-	-	-
phs-uncoated 2000 CR**	unhardened	Trans.	300 - 500	450 - 650	17	-	-	-	-
phs-uncoated 2000 CR**	hardened*	Trans.	1200	1900	5	-	-	-	-
phs-uncoated 2000 HR**	unhardened	Trans.	260 - 680	440 - 850	10	-	-	-	-
phs-uncoated 2000 HR**	hardened*	Trans.	1200	1900	5	-	-	-	-

[1)] The voestalpine steel grades meet the specifications of VDA 239-500.

* Mechanical parameters and coating properties in hardened condition are standard values achieved in professional processing of flat sheets. The indicated values are not guaranteed by voestalpine Stahl GmbH

** Indication of preliminary values

SURFACES AND FUNCTIONAL SURFACE TREATMENT

Surfaces according to EN 10130 and VDA 239-100

Product variant	Norms and specifications	Normal surface	Best surface
Uncoated cold-rolled strip	EN 10130 VDA 239-100	A U	B E

Functional surface treatment

Product variant	Oiled (e.g. prelube2)
Uncoated cold-rolled strip	✓

greentec steel

Premium quality with reduced carbon footprint

Cold-rolled steel strip – greentec steel Edition
Max. carbon footprint 1.97 kg CO_2e per kg of steel [1)]

[1)] per EN 15804+A2 (EPD methodology) cradle to gate

All products, dimensions and steel grades listed in each voestalpine supply range are available as greentec steel Edition.

DIMENSIONS

Available dimensions: wide strip (coil)			
Thickness [mm]	Width max. [mm]	Outside diameter max. [mm]	Inside diameter [mm]
0.40 - 3.00	1615	2000	500 / 600

Available dimensions: slit (slit strip)			
Thickness [mm]	Strip width min. [mm]	Outside diameter [mm]	Inside diameter [mm]
0.40 - 3.00	10	700 - 2000	500 / 600

Available dimensions: cut-to-length (sheet)			
Thickness [mm]	Width min. [mm]	Length [mm]	Package weight max. [t]
0.40 - 3.00	210	200 - 6700	6

Indicated references are standard values. The available combinations of widths and thicknesses and supply forms vary depending on the steel grade. Certain limitations possible depending on thickness.

This document provides an overview of the cold-rolled steel strip products supplied by the voestalpine Steel Division. Other grades are available upon request. Please find further information and downloads under the following link:
www.voestalpine.com/steel

10/2023

voestalpine Steel Division
voestalpine-Straße 3
4020 Linz, Austria
productmanagement@voestalpine.com
www.voestalpine.com/steel

voestalpine
ONE STEP AHEAD.