

Docol 1000CP

General Product Description

Docol 1000CP is made for cold forming and allows for a tight bending radius on high-strength applications. These steels are characterized by both a high yield strength and an improved cleanliness, which allows for a tight radius.

Dimension Range

Cold rolled / UC, EG thickness 0.50-2.10 mm, width up to 1527 mm.

Cold rolled / GI: thickness 0.95-2.00 mm, width up to 1250 mm.

Slit strip and cut to length sheets are available upon request.

Grade and coating specific restrictions on available dimensions may occur.

Mechanical Properties

Steel grade	Standard	Coating	Test direction	Yield strength R _{p0.2} (MPa)	Tensile strength R _m (MPa)	Elongation A ₈₀ (min %)	BH ₂ (min MPa)
Docol CR780Y 980T-CP	VDA 239-100: 2016	UC, EG, GI	L	780 - 950	980 - 1140	6 ¹⁾	30
Docol Roll 1000	SSAB	UC, EG	T	800 - 950	980 - 1140	6	30
Docol Roll 1000HY	SSAB	UC, EG	T	850 -	1000 - 1200	5	30

¹⁾Decreased minimum elongation values apply for product thickness t < 0.60 mm (minus 2 units).

The testing of mechanical properties of electrogalvanized products is conducted without coating.

Chemical Composition (Ladle analysis)

Steel grade	Coating	C (max %)	Si (max %)	Mn (max %)	P (max %)	S (max %)	Al (%)	Nb+Ti (max %)	Cr+Mo (max %)	B (max %)	Cu (max %)
Docol CR 780Y980T- CP	UC, EG, GI	0.23	1.00	2.70	0.050	0.010	0.015 - 1.0	0.15	1.00	0.005	0.20
Docol Roll 1000	UC, EG	0.16	0.40	1.80	0.020	0.010	0.015 -	0.10	-	-	-
Docol Roll 1000HY	UC, EG	0.16	0.40	1.80	0.020	0.010	0.015 -	0.10	-	-	-

Tolerances

Cold rolled (UC, EG): Tolerances in accordance to EN10131.

Hot-dip galvanized (GI): Tolerances in accordance to EN10143.

Customized dimensional and shape tolerances available upon request.

Coatings and Surface Treatments

Coatings

The metal coating options for Docol products include:

Hot-dip zinc coating (GI) consists almost entirely of zinc (>99%). It is lead free, resulting in a small zinc spangle size. The coating provides good corrosion protection.

Electrogalvanized coating (EG) is applied continuously by electro deposition. The coating consists of zinc (>99%). Electrogalvanized steel is characterized by its excellent surface quality and uniform coating thickness.

Grade specific availability of metal coatings for Docol products is given in the Mechanical properties table (Coating).

Coating type	Coating class	Standard	Closest in EN10346, informative	Coating mass per side, Single spot test (g/m ²)	Thickness per side, informative (µm)
GI	40/40	VDA239-100	Z100	40 - 60	5,6 - 8,5
GI	50/50	VDA239-100		50 - 70	7,0 - 9,9
GI	60/60	VDA239-100	Z140	60 - 90	8,5 - 12,7
GI	70/70	VDA239-100		70 - 100	9,9 - 14,1
GI	85/85	VDA239-100		85 -115	12,0 - 16,2
GI	115/115	VDA239-100	Z275	115 -155	16,2 - 21,8
EG	ZE25/25	EN 10152	-	12 -	1,7 -
EG	ZE50/50	EN 10152	-	29 -	4,1 -
EG	ZE75/75	EN 10152	-	47 -	6,6 -
EG	ZE100/100	EN 10152	-	65 -	9,1 -

Docol metal coated products are available with surface quality for unexposed applications.

In addition to these coating masses, OEM specific coatings and single sided EG coatings are available upon request.

Surface Treatments

Uncoated (UC): available as oiled

Hot-dip galvanized (GI): available as oiled and/or chemically passivated

Electrogalvanized (EG): available as oiled and/or chemically passivated or phosphated

All surface treatments are in accordance with RoHS directive (2011/65/EU) and do not contain Chromium VI (Cr⁶⁺). Surface treatments provide only temporary surface protection during transportation and storage. In order to avoid corrosion damages, care must be taken to keep the products dry during transportation and storage. If they become wet, they must be separated and situated so that they are dried quickly.

Fabrication and Other Recommendations

For information concerning fabrication, see SSAB's brochures on www.ssab.com or consult Tech Support, techsupport@ssab.com.

Appropriate health and safety precautions must be taken when bending, welding, cutting, grinding or otherwise working on the product.

Contact Information

www.ssab.com/contact