

## 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.

Hot rolled / UC: thickness 2.50-4.00 mm, width up to 1510 mm.

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

Grade and coating specific restrictions on available dimensions may occur.

### Mechanical Properties

	Standard	Coating	Test direction	Yield strength R <sub>p0.2</sub> (MPa)	Tensile strength R <sub>m</sub> (MPa)	Elongation A <sub>80</sub> (min %)	Elongation A <sub>50</sub> (min %)	BH <sub>2</sub> (min MPa)
Docol CR780Y 980T-CP	VDA 239-100	UC, EG, GI	L	780 - 950	980 - 1140	6 <sup>1)</sup>	—	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
Docol HR720Y 950T-CP	SSAB	UC*	L	720 - 900	950 - 1130	—	10	30
Docol HR800Y 950T-CP	SSAB	UC*	T	800 - 920	950 - 1050	—	9	30

\*Available upon request.

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

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

### Chemical Composition (ladle analysis)

	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 - 1.00	0.15	1.00	0.005	0.20
Docol Roll 1000	UC, EG	0.16	0.40	1.80	0.020	0.010	From 0.015	0.10	—	—	—
Docol Roll 1000HY	UC, EG	0.16	0.40	1.80	0.020	0.010	From 0.015	0.10	—	—	—
Docol HR 720Y950T- CP	UC*	0.18	1.00	2.20	0.050	0.010	0.015 - 1.2	0.25	1.00	0.005	0.25
Docol HR 800Y950T- CP	UC*	0.18	1.00	2.20	0.050	0.010	From 0.015	0.25	1.00	0.005	0.25

\* Available upon request.

### Tolerances

Cold rolled (UC, EG): Tolerances in accordance to EN 10131.

Hot rolled (UC): Tolerances in accordance to EN 10051.

Hot-dip galvanized (GI): Tolerances in accordance to EN 10143.

Customized dimensional and shape tolerances are available upon request.

## 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 EN standard, informative <sup>1)</sup>	Coating mass per side, single spot test (g/m <sup>2</sup> )	Thickness per side informative (µm)
GI	40/40	VDA 239-100	Z100	40 - 60	5.6 - 8.5
GI	50/50	VDA 239-100	—	50 - 70	7.0 - 9.9
GI	60/60	VDA 239-100	Z140	60 - 90	8.5 - 12.7
GI	70/70	VDA 239-100	—	70 - 100	9.9 - 14.1
GI	85/85	VDA 239-100	—	85 - 115	12.0 - 16.2
GI	115/115	VDA 239-100	Z275	115 - 155	16.2 - 21.8
EG	12/12	VDA 239-100	ZE25/25	12 - 32	1.7 - 4.5
EG	18/18	VDA 239-100	—	18 - 38	2.5 - 5.4
EG	29/29	VDA 239-100	ZE50/50	29 - 49	4.1 - 6.9
EG	47/47	VDA 239-100	ZE75/75	47 - 61	6.6 - 8.6
EG	50/50	VDA 239-100	—	50 - 70	7.0 - 9.9
EG	53/53	VDA 239-100	—	53 - 73	7.5 - 10.3
EG	60/60	VDA 239-100	—	60 - 80	8.5 - 11.3
EG	65/65	VDA 239-100	ZE100/100	65 - 85	9.2 - 12.0
EG	70/70	VDA 239-100	—	70 - 90	9.9 - 12.7

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.

<sup>1)</sup> For GI and GA the closest informative value refers to EN 10346. For EG to EN 10152.

## 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 (Cr<sup>6+</sup>). 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](http://www.ssab.com) or consult Tech Support.

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

## Contact Information

[www.ssab.com/contact](http://www.ssab.com/contact)