

## Docol 1000DP

### General Product Description

Docol 1000DP dual-phase steel is developed for increased safety in cars. Its high strength allows for weight reduction in BIW applications. This steel undergoes special heat treatment in a continuous annealing line, producing a two-phase structure. Ferrite that imparts unique forming properties represents one phase, and martensite that accounts for the strength represents the other phase.

### Dimension range

Docol CR700Y/1000T-DP / UC: thickness 0.50-2.10 mm, width up to 1527 mm, length up to 8500 mm.

Slitting to narrow coils and cutting to sheets are available upon request.

### Mechanical Properties

Steelgrade	Thickness (mm)	Coating	Yield strength $R_{p0.2}$ (MPa)	Tensile strength $R_m$ (MPa)	Elongation $A_{80}$ (min %)	Min. inner bending radius for 90 °
Docol CR700Y 1000T-DP	0.50- 0.70	UC, EG	700- 950	1000- 1200	5	2.0xt
Docol CR700Y 1000T-DP	0.71- 2.1	UC, EG	700- 950	1000- 1200	7	2.0xt

The mechanical properties are tested transverse to the rolling direction.

### Chemical Composition

C (max %)	Si (max %)	Mn (max %)	P (max %)	S (max %)	Al (%)	Nb+Ti (max %)	Cr+Mo (max %)	B (max %)	Cu (max %)
0.18	0.80	1.80	0.020	0.010	0.015- 1.00	0.10	1.40	0.005	0.20

### Tolerances

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

Customized dimensional and shape tolerances are available on request.

### Coatings and surface treatments

The metal coatings options for Docol products include:

**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 coated Docol products are given in the Mechanical properties table, coating column.

Type	Coating class	Standard	Closest in EN10346, informative	Coating mass per side, Single spot test (g/m²)	Thickness per side, informative (µm)	Density (g/cm³)	Surface quality (U = unexposed, E = exposed)
EG (2)	ZE25/25	EN 10152	-	12-	1,7-	7,14	U
EG (2)	ZE50/50	EN 10152	-	29-	4,1-	7,14	U
EG (2)	ZE75/75	EN 10152	-	47-	6,6-	7,14	U
EG (2)	ZE100/100	EN 10152	-	65-	9,1-	7,14	U

(2) EG products can be supplied with single side coating if agreed up on at the time of order, Such coating are designated ZE25/00, etc.

In addition to these coating masses, asymmetric coatings and OEM coating specifications are available upon request.

## Surface treatments

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.

Surface coating	Available surface treatment
EG	Oiled
EG	Chemically passivated
EG	Phosphated
EG	Chemically passivated and oiled
EG	Unprotected
UC (Cold-rolled)	Oiled
UC (Cold-rolled)	Unprotected

## Fabrication and Other Recommendations

For information concerning fabrication, see SSAB's brochures on [www.ssab.com](http://www.ssab.com) or consult Tech Support, [techsupport@ssab.com](mailto: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](http://www.ssab.com/contact)