

## Docol 800CP

### General Product Description

Docol 800CP is intended for designs where high structural strength and energy absorption are desired, suitable for cold formed safety components and crash-relevant equipment within the automotive and transport industries.

#### Dimension range

Docol HR800CP / UC, EG: thickness 2.00-4.00 mm, width 1530 mm, length 16000 mm.

Docol HR660Y760T-CP / UC, EG: thickness 2.00-4.00 mm, width up to 1530 mm, length up to 16000 mm.

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

### Mechanical Properties

| Steelgrade    | Standards | Coating | Test direction | Yield strength<br>$R_{p0,2}$<br>(MPa) | Tensile strength $R_m$<br>(MPa) | Elongation $A_{80}$<br>(min %) | Elongation $A_5$<br>(min %) |
|---------------|-----------|---------|----------------|---------------------------------------|---------------------------------|--------------------------------|-----------------------------|
| Docol HR800CP | -         | UC, EG  | Longitudinal   | 660- 820                              | 760- 960                        | 10                             | 13                          |

|                     |                   |        |              |          |          |    |    |
|---------------------|-------------------|--------|--------------|----------|----------|----|----|
| Docol HR660Y760T-CP | VDA-239-100: 2016 | UC, EG | Longitudinal | 660- 820 | 760- 960 | 10 | 13 |
|---------------------|-------------------|--------|--------------|----------|----------|----|----|

If  $R_{p0,2}$  is not applicable then  $R_{eH}$  is used.

### Chemical Composition

| Steelgrade     | C<br>(max %) | Si<br>(max %) | Mn<br>(max %) | P<br>(max %) | S<br>(max %) | Al<br>(%)  | Nb+Ti<br>(max %) | Cr+Mo<br>(max %) | B<br>(max %) | Cu<br>(max %) |
|----------------|--------------|---------------|---------------|--------------|--------------|------------|------------------|------------------|--------------|---------------|
| Docol HR 800CP | 0.18         | 1.00          | 2.20          | 0.050        | 0.010        | 0.015-1.20 | 0.25             | 1.00             | 0.005        | 0.20          |

|                      |      |      |      |       |       |            |      |      |       |      |
|----------------------|------|------|------|-------|-------|------------|------|------|-------|------|
| Docol HR 660Y760T-CP | 0.18 | 1.00 | 2.20 | 0.050 | 0.010 | 0.015-1.20 | 0.25 | 1.00 | 0.005 | 0.20 |
|----------------------|------|------|------|-------|-------|------------|------|------|-------|------|

### Tolerances

Hot-rolled (UC, EG): Tolerances in accordance to EN10051.

Customized dimensional and shape tolerances are available on request.

### Coatings and surface treatments

#### Coatings

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/m <sup>2</sup> ) | Thickness per side, informative (μm) | Density (g/cm <sup>3</sup> ) | 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 (Hot-rolled) | Oiled (Only for pickled steel)  |
| UC (Hot-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)