

Docol PHS 1800

General Product Description

Docol PHS 1800 is cold rolled and alloyed with a small percentage of boron to improve hardenability. This steel is specially developed for parts and components that are manufactured by direct or indirect hot stamping. Applications include safety parts such as door impact beams, bumper systems and B-pillar reinforcements.

Dimension range

Cold rolled / UC: thickness 0.70-3.00 mm, width up to 1500 mm.

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

Mechanical Properties

Steel grade	Standard	Condition	Test direction	Yield strength R _{p0.2} Typical (MPa)	Tensile strength R _m Typical (MPa)	Elongation A ₈₀ Typical (%)
Docol PHS FH1800	SSAB	Full Hard	T	970	1070	4
Docol PHS CR1800	SSAB	As delivered Annealed	T	350	500	27
Docol PHS CR1800	SSAB	Hot Stamped*	T	1300	1800	6

* Properties depend on the process.

Chemical Composition

Steel grade	C (%)	Si (%)	Mn (%)	P (max %)	S (max %)	Cr (max %)	B (%)
Docol PHS CR 1800	0.27 - 0.33	0.15 - 0.35	1.00 - 1.45	0.025	0.010	0.35	0.0008 - 0.0050

Tolerances

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

Customized dimensional and shape tolerances are available upon request.

Surface Treatments

Uncoated (UC): available as oiled

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