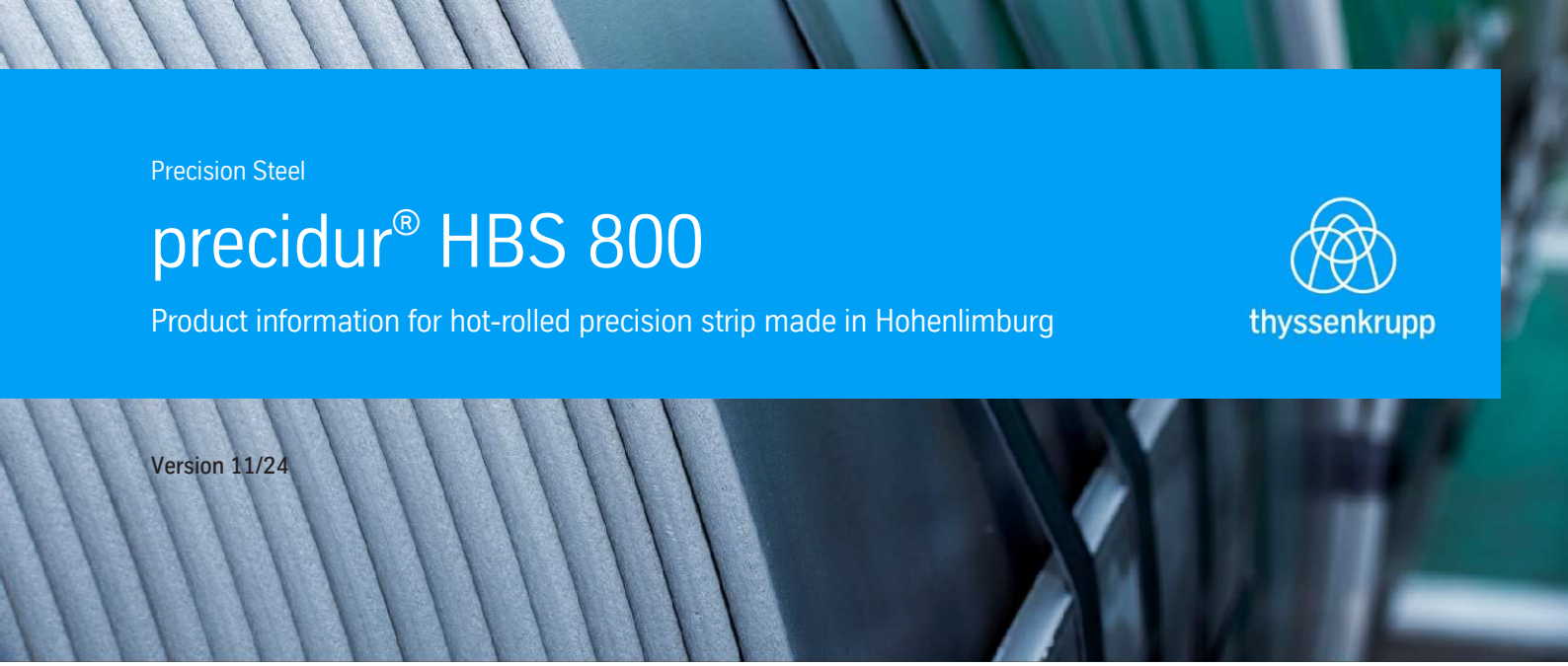


Precision Steel

precidur® HBS 800

Product information for hot-rolled precision strip made in Hohenlimburg

thyssenkrupp

Version 11/24

Bainitic steel

The HBS grades from BU Precision Steel are steels with a quasi-single-phase bainitic microstructure.

They are highly suitable for critical forming operations due to their favorable yield-to-tensile ratio. These steels are optimized in particular for the forming of punched or cut edges.

Contents

precidur®

- is used in virtually all industry sectors.
- offers close thickness tolerances similar to cold-rolled strip, optimum surface finishes and consistent material properties over the entire strip length and width.
- is characterized by its symmetrical strip profiles and mill edges.
- is the sum of all the experience we have gained in more than 100 years of manufacturing and processing steel.

Technical features

Bainitic steel

Material number:	1.0998
Material name:	HDT760C / HR660Y760T-CP
Proprietary brand:	precidur® HBS 800
Delivery specification:	DIN EN 10338:2015 / VDA 239-100
Application:	Ultrahigh-strength steels with first class edge formability, extended fatigue strength, very good weldability and high bending capacity
Special future:	Despite very high strengths, bainitic rolled microalloyed steels are suitable for enhanced forming. This is evident among other things in very hole expansion values.

Chemical composition

Ladle analysis mass percentages	C [%]	Si [%]	Mn [%]	P [%]	S [%]	Cr [%]	Al [%]	Ti [%]	Nb [%]	V [%]	Mo [%]	B [%]
min.	-	-	-	-	-	-	0.015	-	-	-	-	-
max.	0.10	0.50	2.10	0.025	0.010	1.00	0.080	0.15	0.10	0.10	0.25	0.0050

Mechanical properties

Longitudinal to rolling direction	Yield strength $R_{p0,2}$ [MPa]	Tensile strength R_m [MPa]	Elongation A_5 [%]	Elongation A_{80} [%]	Hole expansion Longitudinal and transverse specimens	
Rolled condition	660 - 820	760 - 910	min. 13*	min . 10*	min 50 %	Ø 70 %

* The elongation is inadequate for showing the good forming behavior of HBS 600

Possible delivery options

Options	Mill edge (NK) Cut edge (GK)	pickled		unpickled	slit	trimmed	Cut to length
precidur® HBS 800	NK or GK	✓	or	✓	✓	✓	✓

General thickness tolerances

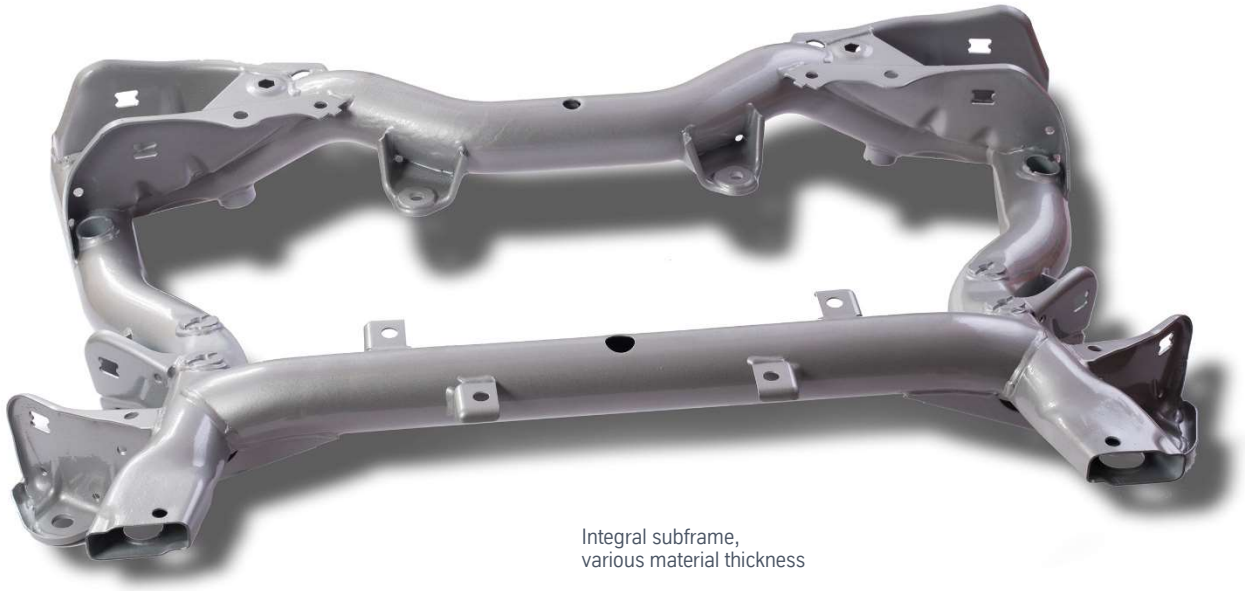
Strip thickness [mm]	1.5 – 2.54	2.55 – 4.03	4.04 – 6.03	6.04 – 8.03	8.04 – 9.03	9.04 – 11.03	11.04 – 14.03	14.04 – 16.00
Standard tolerances [mm]	± 0.04	± 0.04	± 0.05	± 0.055	± 0.06	± 0.07	± 0.08	± 0.10
Special tolerances [mm]	± 0.03	± 0.035	± 0.04	± 0.045	± 0.05	± 0.055	± 0.06	± 0.07

General delivery options

Coil inner diameter:	standard 508 mm / optional 610 mm
Coil outer diameter:	max. 1,890 mm
Coil weight:	max. 20.5 kg/mm strip width
Strip width*:	max. 720 mm
Strip thickness*:	1.5 – 16 mm

* May be subjected to restrictions.

Application examples for bainitic steel



Integral subframe,
various material thickness

Special mill grades feature unique thyssenkrupp properties. Other terms and conditions of supply not specified here will be based on the applicable specifications. The specifications used will be those valid on the date of publication of this product information.

Please contact our sales/technical customer support team for detailed information.

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