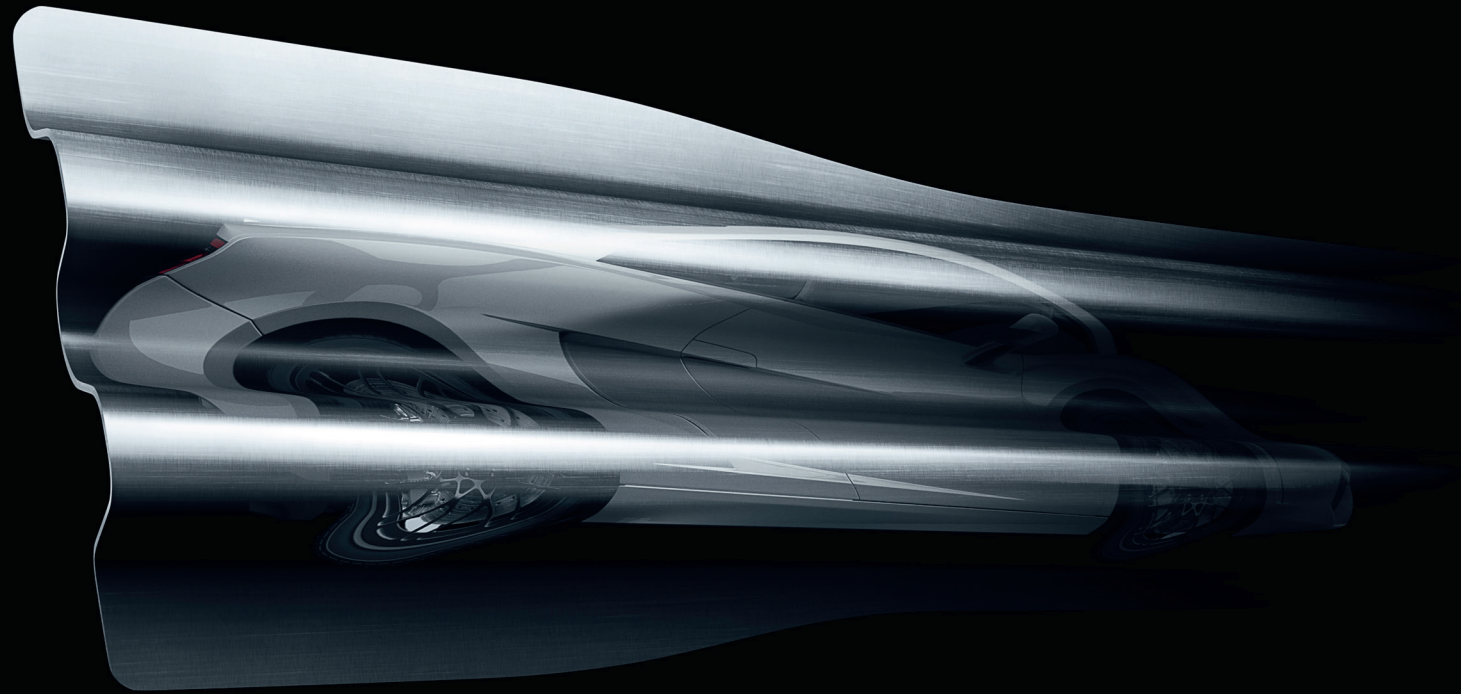


DOCOL[®]
THE AUTOMOTIVE STEEL

DOCOL PRODUCT PROGRAM FOR THE AUTOMOTIVE INDUSTRY



With a full range of advanced high strength steels we help reduce car body weight while still maintaining safety.

SSAB

STEEL GRADE	CR/HR	Test direction	MECHANICAL PROPERTIES					Elongation A ₅₀ (%) min	Uncoated UC	Electro Galvanized EG	COATINGS		
			Yield strength R _{10.2} /ReL/ReH (MPa) min max		Tensile strength R _m (MPa) min max		Hot Dip Galvanized GI				Galvannealed GA	Galvan ZA	
HIGH STRENGTH LOW ALLOY STEELS													
Docol 420LA	CR	Transversal	420	520	470	590	17	x	x				
Docol CR 420LA	CR	Longitudinal	420	520	480	590	17			x	x	x	
Docol 460LA	CR	Transversal	460	580	510	660	13	x	x				
Docol CR 460LA	CR	Longitudinal	460	580	520	680	15			x	x	x	
Docol 500LA	CR	Transversal	500	620	570	710	14	x	x				
Docol 800LA	CR	Longitudinal	800	950	800	950	9	x	x				
Docol HR 420LA	HR	Longitudinal	420	520	480	600	18	x	x				
Docol HR 420LA	HR	Longitudinal	420	520	480	590	18			x			
Docol HR 460LA	HR	Longitudinal	460	560	520	640	16	x	x				
Docol HR 500LA	HR	Longitudinal	500	620	560	700	14	x	x				
Docol HR 550LA	HR	Longitudinal	550	670	610	750	12	x	x	x			
Docol HR 600LA	HR	Longitudinal	600		650	820	13	x	x				
Docol HR 650LA	HR	Longitudinal	650		700	850	14	x	x				
Docol HR 700LA	HR	Longitudinal	700	850	750	950	10	x	x	x			
DUAL PHASE STEELS													
Docol 440DP	CR	Transversal	265	370	440	530	31 (A ₅₀)	x	x				
Docol 490DP	CR	Longitudinal	290	380	490	600	24	x	x	x	x	x	
Docol 500DL	CR	Transversal	230	300	500	600	24	x	x				
Docol 500DP	CR	Transversal	290	370	500	600	20	x	x				
Docol 590DP	CR	Longitudinal	330	430	590	700	20	x	x	x	x	x	
Docol 600DL	CR	Transversal	280	360	600	700	20	x	x				
Docol 600DP	CR	Transversal	350	450	600	700	16	x	x				
Docol 780DP	CR	Longitudinal	420	550	780	950	15	x	x				
Docol 780DP	CR	Longitudinal	440	550	780	900	14	x	x	x	x	x	
Docol 780DP	CR	Longitudinal	450	550	780	900	15	x	x				
Docol 800DL	CR	Transversal	390	600	800	950	13	x	x				
Docol 800DP	CR	Transversal	500	650	800	950	10	x	x				
Docol 800DP	CR	Transversal	600	750	800	950	10	x	x				
Docol 800DPX	CR	Transversal	620	770	800	950	10			x	x	x	
Docol 980DP (Low YS)	CR	Longitudinal	550	700	980	1200	10	x	x				
Docol 980DP (Low YS)	CR	Longitudinal	590	740	980	1130	10	x	x	x	x	x	
Docol 980DP (High YS)	CR	Longitudinal	650	900	980	-	8	x	x				
Docol 980DP (High YS)	CR	Transversal	660	810	980	1130	10	x	x				
Docol 980DP (High YS)	CR	Longitudinal	700	850	980	1130	8	x	x	x			
Docol 1000DP	CR	Transversal	700	950	1000	1200	5	x	x				
Docol 1000DPX	CR	Transversal	800	1000	1000	1200	6			x	x	x	

1) Available by request 2) Under development 3) Approximate values after stamped/die-quenched

STEEL GRADE	CR/HR	Test direction	MECHANICAL PROPERTIES					Elongation A ₅₀ (%) min	Uncoated UC	Electro Galvanized EG	COATINGS		
			Yield strength R _{10.2} /ReL/ReH (MPa) min max		Tensile strength R _m (MPa) min max		Hot Dip Galvanized GI				Galvannealed GA	Galfan ZA	
COMPLEX PHASE AND FERRITIC-BAINITIC STEELS													
Docol 600CP	CR	Longitudinal	350	500	600	-	16				x	x	x
Docol 780CP	CR	Longitudinal	570	720	780	920	10				x	x	x
Docol 980CP	CR	Longitudinal	780	950	980	1140	6	x	x		x	x	x
Docol 1180CP	CR	Longitudinal	900	1100	1180	1350	5	x	x				
Docol Roll 800	CR	Transversal	620	750	800	950	8	x	x		x		
Docol Roll 1000	CR	Transversal	850	1050	1000	1200	5	x	x		x		
Docol HR 800CP	HR	Longitudinal	660	820	760	960	10	x	x				
Docol HR 800HE ²⁾ (Improved hole expansion)	HR	Longitudinal	660	820	760	960	10	x	x				
Docol HR 1000HE ²⁾ (Improved hole expansion)	HR		800	950	980	1130	10	x	x				
MARTENSITIC STEELS													
Docol 900M	CR	Longitudinal	700	1000	900	1100	4	x	x				
Docol 1100M	CR	Longitudinal	860	1100	1100	1300	3	x	x				
Docol 1200M	CR	Transversal	950	-	1200	1400	3	x	x				
Docol 1300M	CR	Longitudinal	1030	1300	1300	1500	3	x	x				
Docol 1400M	CR	Transversal	1150	-	1400	1600	3	x	x				
Docol 1500M ¹⁾	CR	Longitudinal	1220	1500	1500	1700	3	x	x				
Docol 1700M ²⁾	CR	Longitudinal	1350	1700	1700	1900	3	x					
Docol HR 1200M	HR	Longitudinal	900	1150	1180	1400	5	x					
PRESS HARDENING STEEL													
Docol PHS 1500	CR		1300 ³⁾	-	1500 ³⁾	-	6	x					
Docol PHS 1800	CR		1560 ³⁾	-	1800 ³⁾	-	6	x					
Docol PHS 2000 ²⁾	CR		1700 ³⁾	-	2000 ³⁾	-	4	x					
Docol PHS HR 1500	HR		1300 ³⁾	-	1500 ³⁾	-	5	x					
Docol PHS HR 2000 ²⁾	HR		1700 ³⁾	-	2000 ³⁾	-	4	x					
TUBES													
Docol 590	CR	Longitudinal	500	-	590	-	12% (A)	x			x	x	x
Docol 780	CR	Longitudinal	600	-	780	-	10% (A)	x			x	x	x
Docol 980	CR	Longitudinal	700	-	980	-	5% (A)	x			x	x	x

¹⁾ Available by request ²⁾ Under development ³⁾ Approximate values after stamped/die-quenched

These are examples, other options are available by request. Our coatings are available in several thicknesses and for many products. For detailed information please contact your local representative or visit www.ssab.com.

DESCRIPTION	CODE		MASS g/m ²
	EN standard	VDA standard	
ELECTRO GALVANIZED			
Zinc	ZE		100
	ZE		140
HOT DIP GALVANIZED			
Zinc	Z	GI	40/40
	Z	GI	50/50
	Z	GI	60/60
	Z	GI	70/70

DESCRIPTION	CODE		MASS g/m ²
	EN standard	VDA standard	
GALVANNEALED			
90% Zinc 10% Iron	ZF	GA	40/40
	ZF	GA	50/50
GALFAN			
95% Zinc 5% Aluminium	ZA		95
	ZA		130

SSAB is a Nordic and US-based steel company. SSAB offers value added products and services developed in close cooperation with its customers to create a stronger, lighter and more sustainable world. SSAB has employees in over 50 countries. SSAB has production facilities in Sweden, Finland and the US. SSAB is listed on the Nasdaq OMX Nordic Exchange in Stockholm and has a secondary listing on the Nasdaq OMX in Helsinki. www.ssab.com.

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