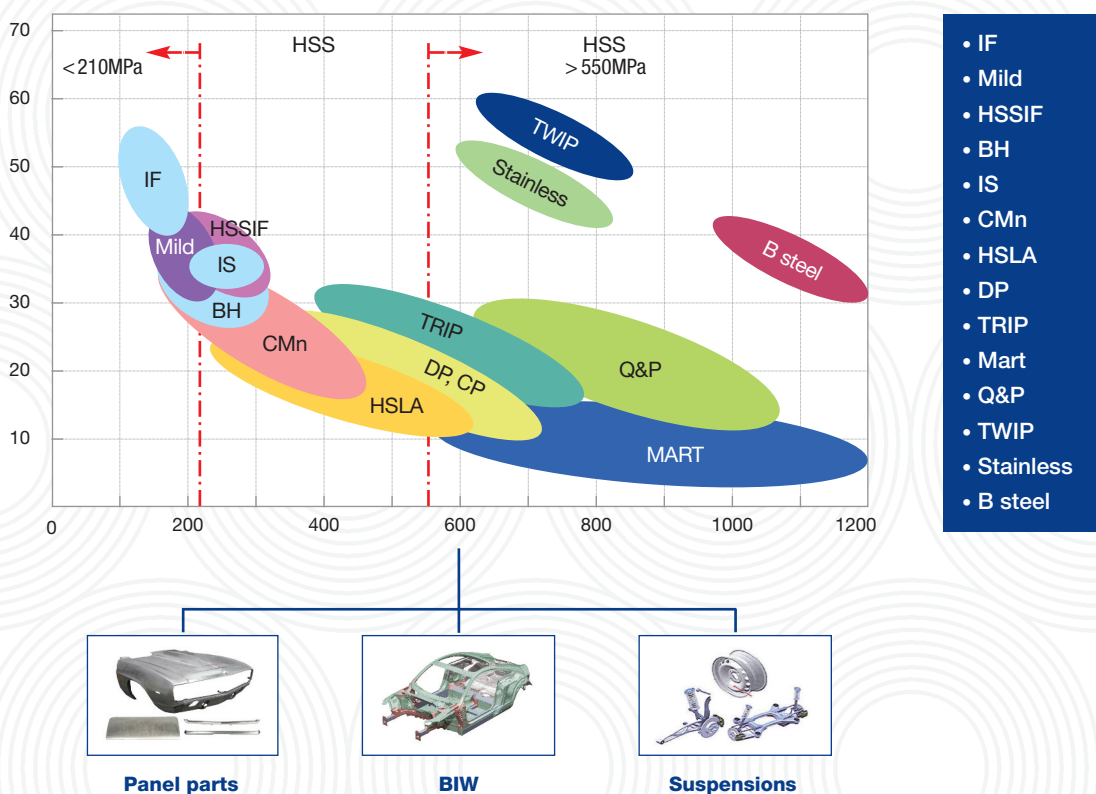


Cold Rolled Steel

Baosteel's HSS and UHSS products have been used in large amount by several world-renowned auto makers in China and in Europe, especially those with tensile strength over 980MPa.

Baosteel's HSS and UHSS can be applied for front fender reinforcement, crash energy absorption box front rail, shock suspension roof, dash board framework, pillar reinforcement, door impact beam, door sill reinforcement board, central tunnel reinforcement part, roof rail, floor cross member, rear rail, rear bumper reinforcement, seat slide seat support board, seat head pillow framework, seat side panel etc.

Baosteel auto UHSS



Dual phase steel

High-strength dual-phase steel: a phase change strengthening steel. Its structure is mainly composed of ferrite and martensite, which is dispersed in certain quantity to ferritic matrix by adoption of special chemical compositions and production process.

It is featured with low yield strength, no yield elongation, high strain strengthening index and excellent collision-resistance and can increase car safety while lowering the weight.

It is mainly used for manufacturing wheels, bumpers, suspension systems and reinforcement as well as outside plates of automobiles.

Cold Rolled Steel

	Mechanical properties			
	YS Rp ₀₂ MPa	TS R _m MPa min	EL % min 80mm	TT 90 min
HC250/450DP	250-320	450	27	0.16
HC300/500DP	300-390	500	23	0.15
HC280/590DP	280-380	590	22	0.14
HC340/590DP	340-440	590	20	0.14
HC550/690DP	550-660	690	12	–
HC420/780DP	420-550	780	14	–
HC500/780DP	500-650	780	10	–
HC550/980DP	550-730	980	7	–
HC820/1180DP	820-1130	1180	3	–

Trip steel

Together with UHSS steel, Baosteel can also supply Transformation-Induced Plasticity (TRIP) Steel - High Silicium. The microstructure of TRIP steel is retained austenite embedded in a primary matrix of ferrite. In addition to a minimum of 5 volume percent of retained austenite, hard phases such as martensite and bainite are present in varying amounts. TRIP steel is mainly used to manufacture key parts like impact bow and bumper reinforcement part, pillar reinforcement part etc.

	Mechanical properties			
	YS Rp ₀₂ MPa	TS R _m MPa min	EL % min 80mm	TT 90 min
HC380/590TR	380-480	590	26	0.20
HC400/690TR	400-520	690	24	0.19
HC420/780TR	420-580	780	20	0.15
HC450/980TR	450-700	980	14	0.14

Martensitic (MS) steel

Cold rolled Martensitic (MS) HSS automotive product usually requires tempering for better plasticity, which gives sufficient formability at such high strength. MS steel is mainly used for structural reinforcement and security parts of automobile, like some key parts front and rear bumper, door impact bar and sill reinforcement part, etc.

	Mechanical properties		
	YS Rp ₀₂ MPa	TS R _m MPa	EL % min 80mm
HC500/780MS	500-700	780	3
HC700/900MS	700-1000	900	2
HC700/980MS	700-960	980	2
HC860/1100MS	860-1100	1100	2
HC950/1180MS	950-1200	1180	2
HC1030/1300MS	1030-1300	1300	2
HC1150/1400MS	1150-1400	1400	2
HC1200/1500MS	1200-1500	1500	2

The information contained in this publication is typical properties for products (excluding identified as "specified value"). The use of the information is at the reader's risk and it is not warranted for the technical information included herein. The information in this publication should be subject to modification without notice. Please contact concerned department for the newest information.

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