

Hot Dipped Galvanised Steel

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.

High yield strength steel

	Mechanical properties					
	YS Rp ₀₂ MPa	TS R _m MPa	Γ ₉₀ min	n ₉₀ min	BH MPa	El % min L ₀ =80mm
Bake Hardening						
H180BD+Z	180-240	300-360	1.5	0.16	30	34
H220BD+Z	220-280	340-400	1.2	0.15	30	32
H260BD+Z	260-320	360-440	–	–	30	28
Interstitial Free						
H180YD+Z	180-240	340-400	1.7	0.18	–	34
H220YD+Z	220-280	340-410	1.5	0.17	–	32
H260YD+Z	260-320	380-440	1.4	0.16	–	30
Rephosphorised						
H220PD+Z	220-320	340-420	1.3	0.15	–	32
H260PD+Z	260-340	380-440	–	–	–	28
Low Alloy						
H300LAD+Z	300-380	380-480	–	–	–	23
H340LAD+Z	340-420	410-510	–	–	–	21
H380LAD+Z	380-480	440-560	–	–	–	19
H420LAD+Z	420-520	470-590	–	–	–	17

	Chemical Analysis (%)							
	C max	Si max	Mn max	P max	S max	Al min	Ti max	Nb max
Bake Hardening								
H180BD+Z	0.04	0.50	0.70	0.060	0.025	0.020	–	–
H220BD+Z	0.06	0.50	0.70	0.080	0.025	0.020	–	–
H260BD+Z	0.08	0.50	0.70	0.100	0.025	0.020	–	–
Interstitial Free								
H180YD+Z	0.18	0.01	0.10	0.70	0.060	0.025	0.020	0.12
H220YD+Z	0.17	0.01	0.10	0.90	0.080	0.025	0.020	0.12
H260YD+Z	0.16	0.01	0.10	1.60	0.100	0.025	0.020	0.12
Rephosphorised								
H220PD+Z	0.08	0.50	0.70	0.080	0.025	0.015	–	–
H260PD+Z	0.15	0.50	0.70	0.100	0.025	0.010	–	–
Low Alloy								
H300LAD+Z	0.10	0.50	1.00	0.030	0.025	0.015	0.015	0.09
H340LAD+Z	0.10	0.50	1.00	0.030	0.025	0.015	0.015	0.09
H380LAD+Z	0.16	0.50	1.50	0.030	0.025	0.015	0.015	0.09
H420LAD+Z	0.16	0.50	1.50	0.030	0.025	0.015	0.015	0.09

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.

	Mechanical properties			
	YS Rp ₀₂ MPa	TS R _m MPa min	El % min A _{80mm}	Π ₉₀ ≥
HC250/450DPD+Z	250-340	450	27	0.16
HC300/500DPD+Z	290-370	500	24	0.15
HC280/590DPD+Z	280-450	590	19	0.14
HC340/590DPD+Z	340-500	590	17	0.14
HC420/780DPD+Z	420-550	780	14	
HC500/780DPD+Z	500-650	780	10	
HC550/980DPD+Z	550-730	980	7	

Trip steel

Together with UHSS steel, Baosteel can also supply Transformation-Induced Plasticity (TRIP) Steel - High Silicium.

The microstructure of TRIP steels 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, B pillar reinforcement part etc.

	Mechanical properties			
	YS Rp ₀₂ MPa	TS R _m MPa min	El % min A _{80mm}	Π ₉₀ ≥
HC380/590TRD+Z	380-480	590	26	0.20
HC400/690TRD+Z	400-510	690	24	0.19
HC420/780TRD+Z	420-560	780	22	0.18

Q&P steel

	Mechanical properties			Chemical analysis (%)		
	YS Rp ₀₂ MPa	TS R _m MPa	El %	C max	Si max	Mn max
HC600/980QP	600-750	980-1050	17-22	0.2	1.5	2.0
HC820/1180QP	1000-1150	1180-1300	8-14	0.2	1.5	2.0

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