

# GOLDEED DEVELOPMENT LTD.

**Different characteristics of structure steel in different country** ([http:// www.goldeed.com](http://www.goldeed.com))

<u>Standards</u>	Country		P.R.C (China)		U.S.A		Japan			ISO		Germany		U.K		Europe		
	Code		GB/T 700~2006	GB/T 1591~2018	ASTM		JIS-G-3101			ISO630		DIN 17100		1979 BS4360		EURONORM		
							SS 410	SS 500	SS 540	Fe 430B	Fe 510B	Rst 37.2	Rst 52.3			25~72		
	Grade		Q235 (A3)	Q355	A36	A572 Gr.50	JIS-G-31011987			ISO630~1980		DIN 17100-1966		Gr. 431	Gr. 50A	Fe360	Fe510	Fe690
Fe33							Fe52	Fe70										
<u>B</u> <u>Mechanical</u> <u>properties</u>	Yield point (Min)	Kg/mm <sup>2</sup>	24	35	25	36	25	29	41	27.5	35.5	24	36	27	36	24	36	37
		N/mm <sup>2</sup>	235	355	250	345	245	284	457	270	348	235	345	265	345	235	355	365
	Tensile Strength (Min)	Kg/mm <sup>2</sup>	38 ~47	47 ~63	41 ~56	50 ~65	41 ~52	50 ~62	55	43 ~53	51 ~65	37 ~53	52 ~69	44 ~59	50 ~65	37 ~43	52 ~62	70 ~85
		N/mm <sup>2</sup>	375~460	470~630	400 ~550	>450	402 ~500	490 ~608	652	420 ~520	500 ~637	362 ~510	510 ~680	430 ~580	490 ~640	360 ~470	510 ~610	690 ~830
	Elong	%	22 ~26	>22	23	18	23	19	19	22	21	25	22	22	20	M	21	10
<u>C</u> <u>Chemical</u> <u>properties</u>	C	%	0.14 ~0.22	0.12 ~0.2	0.25	0.23			0.3	0.21	0.22	0.20	0.20	0.25	0.20	0.20	0.22	
	Mn	%	0.3 ~0.65	1.2 ~1.6		1.35			1.6	1.6	1.6		0		1.5			
	P	%	<0.045	<0.045	0.04	0.04	0.05	0.05	0.05	0.050	0.050	0.050	0.045	0.05	0.05	0.06	0.05	0.05
	S	%	<0.05	<0.045	0.05	0.05	0.05	0.05	0.04	0.050	0.050	0.050	0.045	0.05	0.05	0.05	0.05	0.05
	Si	%	<0.3	0.2~ 0.55		0.40				0.55	0.55							