

耐疲労特性に優れた TS780 MPa 級熱延鋼板*

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TS 780 MPa Grade Hot Rolled Sheet Steels with High Fatigue Strength



要旨

自動車ホイールなどの足回り部品に適する耐疲労特性の優れた

Table 1 Chemical composition, structure and mechanical properties of steels

Steel grade	C	Mn	P	S	Si	Al	N	As	Se	Cr	Ni	Mo	Cu	Other	Structure	Yield strength (MPa)	Tensile strength (MPa)	Elongation (%)	Impact energy (J)
ST780	0.008	0.015	0.0015	0.0005	0.03	0.005	0.0015	0.0005	0.0005	0.005	0.005	0.005	0.005		Ac1	780	880	25	27
ST800	0.008	0.015	0.0015	0.0005	0.03	0.005	0.0015	0.0005	0.0005	0.005	0.005	0.005	0.005		Ac1	800	900	25	27
ST820	0.008	0.015	0.0015	0.0005	0.03	0.005	0.0015	0.0005	0.0005	0.005	0.005	0.005	0.005		Ac1	820	920	25	27
ST840	0.008	0.015	0.0015	0.0005	0.03	0.005	0.0015	0.0005	0.0005	0.005	0.005	0.005	0.005		Ac1	840	940	25	27
ST860	0.008	0.015	0.0015	0.0005	0.03	0.005	0.0015	0.0005	0.0005	0.005	0.005	0.005	0.005		Ac1	860	960	25	27
ST880	0.008	0.015	0.0015	0.0005	0.03	0.005	0.0015	0.0005	0.0005	0.005	0.005	0.005	0.005		Ac1	880	980	25	27
ST900	0.008	0.015	0.0015	0.0005	0.03	0.005	0.0015	0.0005	0.0005	0.005	0.005	0.005	0.005		Ac1	900	1000	25	27
ST920	0.008	0.015	0.0015	0.0005	0.03	0.005	0.0015	0.0005	0.0005	0.005	0.005	0.005	0.005		Ac1	920	1020	25	27
ST940	0.008	0.015	0.0015	0.0005	0.03	0.005	0.0015	0.0005	0.0005	0.005	0.005	0.005	0.005		Ac1	940	1040	25	27
ST960	0.008	0.015	0.0015	0.0005	0.03	0.005	0.0015	0.0005	0.0005	0.005	0.005	0.005	0.005		Ac1	960	1060	25	27
ST980	0.008	0.015	0.0015	0.0005	0.03	0.005	0.0015	0.0005	0.0005	0.005	0.005	0.005	0.005		Ac1	980	1080	25	27
ST1000	0.008	0.015	0.0015	0.0005	0.03	0.005	0.0015	0.0005	0.0005	0.005	0.005	0.005	0.005		Ac1	1000	1100	25	27

10⁻³

Table 3 Chemical composition of newly developed 780 MPa TS grade steel

(mass%)						
C	Si	Mn	Ti	P	S	Al
0.08	1.50	1.80	0.10	0.010	0.001	0.030

Table 4 Mechanical properties of newly developed 780 MPa TS



