

S890Q, S890QL, S890QL1 steel properties

S890Q, S890QL and S890QL1 steel are European grade quenched and tempered high yield strength structural steels, equivalent to the Chinese grade Q890.

They are steel grades in the EN 10025-6 standard, S means structural steel, 890 is the yield value, unit MPa, Q means delivery conditions, L represents the specified minimum value of impact energy when the temperature is not lower than -50°C, and L1 represents the specified minimum value of impact energy when the temperature is not lower than -60°C.

Smelting analysis of chemical composition of S890Q, S890QL, S890QL1 steel plates:

C	Si	Mn	P	S	Ni	Cr	Mo	Cu	Nb	V	Ti	N	Zr	B
≤0.	≤0.	≤1.	≤0.0	≤0.01	≤	≤1.	≤0.	≤0.	≤0.0	≤0.1	≤0.0	≤0.01	≤0.1	≤0.00
2	8	7	2	0	2	5	7	5	6	2	5	5	5	5

Mechanical properties of S890Q, S890QL, S890QL1 steel plates:

Yield		Tensile Strength Rm [N/mm ²] transv.	Fracture Elongation [%]transv. min.	Minimum values of impact energy in J at temperatures, in °C			
thickness	Strength ReH [N/mm ²]						
	transv.min.						
t > 3 mm	890	940 to 1100		0	-20	-40	-60
t ≤ 50 mm							
t > 50 mm	830	88 to 1100	11	40	30	0	-
t ≤ 100 m				50	40	30	-
t > 100 m	-	-		60	50	40	-
t ≤ 150 m							