High yield strength structural steel plates (S690 QL equivalent)

S 690 QL is a high yield structural steel produced in compliance with EN-10025:6:2005. The material is supplied in quenched and tempered condition	and has a good toughness ,bending and welding properties. This high yield structural steel plates are applicable in heavy transportation,	Machine building, constructions & lifting equipment, mechanical constructions, plant constructions and structural steel etc.

CHEMICAL COMPOSITION:

		%C Max	%Mn Max	%S Max	%P Max	%Si Max	%Cr + %Mo Max	Al Min	Cu +Ni Max	Ti Max	B Ppm Max	N Ppm Max	CEV* Max
EN10025-6 S690QL		0.20	1.7	0.015	0.025	0.80	2.2	0.015	2.50	0.05	50	150	0.65
Typical chemistry	6.0-25.0	0.18	1.4	0.005	0.020	0.50	0.8	0.020	0.70	0.02	20	60	0.48
	25.0-60.0	0.18	1.5	0.005	0.025	0.60	1.0	0.020	0.90	0.02	20	60	0.55

* CEV= [C+ Mn/6 + (Cr+ Mo+ V)/5+ (Cu+ Ni)/15]

Heat Treatment: Quenching and Tempering

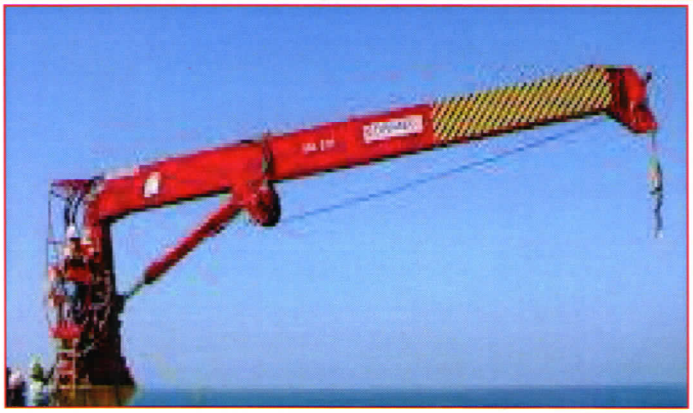
MECHANICAL PROPERTIES:

	Nominal thickness	YS (MPa) Min	UTS (MPa)	%El (GL: 5.65√So) Min	Impact at (-40°C) (Longitudinal)
Specification	6-50mm	690	770-940	14	30 J Min
Typical indicative values	6-25mm	720	800 Min	16	>100J
	25-60mm				

Typical sizes		
Internal grade	Thickness (mm)	Width (mm)
SRHSQ70	6-25mm	2000X3500
SRHSQ69	25-60mm	

Fabrication and Other recommendations: Mechanical properties are achieved after quenching and subsequent tempering. The properties of the delivery condition cannot be retained after exposure to temperatures in excess of 580°C.

Typical Application: Crane booom



Microstructure@500X: Bainite