



JSW STEEL LIMITED

Dolvi Works, Taluka - Pen, District - Raigad, Maharashtra - 402107, India
Regd. Office : JSW Centre, Bandra Kurla Complex, Bandra (East), Mumbai - 400 051
CIN NO. : L27102MH1994PLC152925

IS 2002:2011



TEST CERTIFICATE FOR HOT ROLLED MEDIUM AND HIGH TENSILE STRUCTURAL STEEL

Test Certificate No.: 7104343066

Date : 30.03.2022
Product : Hot Rolled Coils
PO No. : PO46512
SO No. : 401549390
SO Date : 25.03.2022

Test Methods : Chemical Composition: IS 8811:1998, ASTM E415:2021
Tensile: IS 1608-1:2022
Bend : IS 1599:2019
Impact: IS 1757-1:2020

Specification Requirements					Mechanical Properties																		
					Tensile direction	YS MPa	UTS MPa	GL mm	El %	YS/UTS ratio	Bend direction	Bend dia, mm	Bend result	CVN Impact direction	CVN Impact temp, °C	CVN Impact avg. energy J	Hardness HV _{0.05}	Hardness HRB	GS No.	IR %	HER	ECV mm	SET
					Min	T	350.0	490.0		22.0		T											
Cast / Heat No.	Coil No. / Packet No.	Nominal Size (mm) T x W x L	Pcs	Qty, MT	Test Results																		
A002182	0222021200/2	2.50 x 472 x C		4.600	T	493.00	554.00	5.85SR	33.00	0.890	T	2.0t	Ok										
A002182	0222021200/4	2.50 x 472 x C		4.955	T	493.00	554.00	5.65SR	33.00	0.890	T	2.0t	Ok										
This is to certify that the above mentioned products produced and supplied by JSW Steel Ltd. Dolvi works do not contain any radioactive element higher than the natural level. The product or packing material does not contain any hazardous substances as per RoHS norms																							
Billing Doc No. :7104343066			Process Route : BOF-ARS-LHF-CCM-HSM																				
Invoice No. :21DO2700188095			Fully killed steel.																				
Mode of transport :Truck			Legends : BOF = Basic Oxygen Furnace, ARS = Argon Rinsing station LHF =Ladle Heating Furnace																				
Vehicle No. :MH46BM9845			CCM = Continuous Casting Machine, RH = RH Degasser, HSM = Hot Strip Mill T x W x L = Thickness x Width x Length																				
			Chemical analysis = Ladle sample analysis, 1 MPa = 1N/mm ²																				
			GL = Gauge Length, YS = Yield Strength, UTS = Ultimate Tensile Strength, El= Total elongation on standard GL,																				
			CVN = Charpy V-notch, L = Longitudinal, T = Transverse, °C = Degree Centigrade, GS = ASTM Grain Size,																				
			IR = Inclusion Rating, ECV = Erichsen Cupping Value, SET = Strainage Embrittlement Test																				
			MAE = Micro Alloying Elements, C Eq% = Carbon Equivalent = [C+Mn/6+(Cr+Mo+W/5+(Ni+Cu)/15]																				
			HER = Hole Expansion Ratio, ReHS = Restriction of Hazardous Substances																				
			The material supplied conforms to the specified dimensions and tolerances																				
			We certify that material comply the certification as per EN 10204:2004 type 3.1.																				
			Subhasis Chakraborty Assistant General Manager For JSW Steel Ltd.																				

HSM/Q/LOGIS/P/03