



STEEL LIMITED

Vijsyanagar Works, PO: Vidyanagar, Village : Tornagal, Dist: Bellary, Karnataka-583275, INDIA
 Regd. Office: JSW Centre, Bandra Kurla Complex, Bandra (East), Mumbai-400051.

MILL TEST CERTIFICATE (According to EN 10204 - 3.1)

TO,
 SALZGITTER MANNESMANN INTER GM
 DUSSELDORF, 40476
 DE

TC No / 0400648966 _ 21 / 7190003466
 Date 07.07.2017

Product: Hot Rolled Pickled and/or Oiled										Chemical Composition & Mechanical Properties													
Cast/Heat No.	Coil No.	T	X	W	X	L	L	MIN	MAX	C	Mn	S	P	Si	Al	B	N	YS	UTS	EL	GL	Bend Test	Remarks
E708550	176831530	4.000	X	1500.0	X	Coil	22.980	23.075	0.080	0.630	0.005	0.015	0.041	0.017	0.041	0.0001	0.0050	429	509	34.00	5.65 SA	Pass	
E715180	176831529	4.000	X	1500.0	X	Coil	19.725	19.810	0.088	0.600	0.005	0.011	0.030	0.005	0.0001	0.0051	421	506	30.00	5.65 SA	Pass		
F715166	176831577	4.000	X	1500.0	X	Coil	21.180	21.255	0.077	0.600	0.005	0.012	0.046	0.010	0.046	0.0001	0.0045	402	500	28.00	5.65 SA	Pass	
F715166	7637190000	4.000	X	1500.0	X	Coil	28.720	28.820	0.077	0.600	0.005	0.012	0.046	0.010	0.046	0.0001	0.0045	399	493	31.00	5.65 SA	Pass	
Total Weight in Metric Tonnes							92.605	92.960															
Total no of Batches							4																

JSW STEEL LIMITED

Vijayanagar Works, PO: Vidyannagar, Village : Tornagallu, Dist: Bellary, Karnataka-583275, INDIA
 Regd. Office: JSW Centre, Bandra Kurla Complex, Bandra (East), Mumbai-400051.

MILL TEST CERTIFICATE (According to EN 10204 - 3.1)

TO,
 SALZGITTER MANNESMANN INTER GM
 DUSSELDORF, 40476
 DE

TC No / 0400648966 _ 21 / 7190003466
 Date 07.07.2017

We hereby certify that the material described herein have been tested and inspected with satisfactory results in accordance with the requirements of the above specification.
 This is to certify that the above mentioned product produced & supplied by JSW Steel Ltd do not contain any radio active element higher than the natural level.
 The product or packing material does not contain any hazardous substances as per ROHS

Commercial Invoice : 7190003466
 Sales Contract Number : 3009
 Product: HOT ROLLED STEEL COILS, PICKLED AND OILED with Mill Edge
 Process Route : BOF-LHF-CCM-HEM-CPL-APL

Legend: BOF = Basic Oxygen Furnace, LHF = Ladle Heating Furnace, CCM = Continuous Casting Machine, HSM = Hot Strip Mill, CPL = Continuous Pickling Line, CRM = Cold Rolling Mill, ECL = Electrolytic Cleaning Line, BAF = Batch Annealing Furnace, SPM = Skin Pass Mill, RCL = Recoiling Cum Inspection Line, APL = Automatic Packaging Line, PLTCM = Pickling Cum Tandem Mill, CGL = Continuous Galvanizing line, CAL = Continuous Annealing Line, CTL = Cut to Length, HRS = HR Slitters, HTL = HR Cut to Length

T x W x T = Thickness x Width x Length, Chemistry = Ladle Sample Analysis, MPa = N/mm², YS = Yield Strength, UTS = Ultimate Tensile Strength, EL = %gs Elongation on Standard Gauge Length
 GSM = Grams per Square Meter
 Oil Type : Q

Certified By

A. Jindal
 CANNISH JINDAL



Jsw STEEL LIMITED

Vijayanagar Works, PO: Vidyannagar, Village : Tornagallu, Dist: Bellary, Karnataka-583275, INDIA
Regd. Office: JSW Centre, Bandra Kurla Complex, Bandra (East), Mumbai-400051.

MILL TEST CERTIFICATE (According to EN 10204 - 3.1)

TO:
SALZGITTER MANNESMANN INTER GM
DUSSELDORF, 40476
DE

TC No : 2017-18 / 0400648966 _ I1 / 7190003441
Date : 30.06.2017

We hereby certify that the material described herein have been tested and inspected with satisfactory results in accordance with the requirements of the above specification.

This is to certify that the above mentioned product produced & supplied by JSW Steel Ltd do not contain any radio active element higher than the natural level

The product or packing material does not contain any hazardous substances as per ROHS

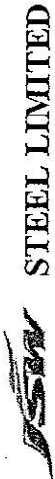
Commercial Invoice : 7190003441
Sales Contract Number : 3009
Product : HOT ROLLED STEEL COILS, PICKLED
AND OILED
with Mill Edges
Process Route : BOF-LHF-CCM-HSM-CPL-APL

Legend: BOF = Basic Oxygen Furnace, LHF = Ladle Heating Furnace,
CCM = Continuous Casting Machine, HSM = Hot Strip Mill, CPL =
Continuous Pickling Line, CRM = Cold Rolling Mill, ECL = Electrolytic
Cleaning Line, BAF = Batch Annealing Furnace, SPM = Skin Pass Mill, RCL =
Recoiling Cum Inspection Line, APL = Automatic Packaging Line, PLTCM =
Pickling Cum Tandem Mill,
CGL = Continuous Galvanizing line CAL = Continuous Annealing Line, CTL =
Cut to Length, HRS = HR Slitters, HTL = HR Cut to Length

T x W x T = Thickness x Width x Length, Chemistry = Ladle Sample Analysis,
IMP_a = IN/mm², YS = Yield Strength, UTS = Ultimate Tensile Strength, EL =
%gs Elongation on Standard Gauge Length
GSM = Grams per Square Meter
Oil Type : Q

Certified By

A. Jindal
CAVISH JINDAL



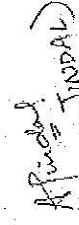
Vijayanagar Works, PO: Vidyannagar, Village : Tornagallu, Dist: Bellary, Karnataka-583275, INDIA
 Regd. Office: JSW Centre, Bandra Kurla Complex, Bandra (East), Mumbai-400051.

MILL TEST CERTIFICATE (According to EN 10204 - 3.1)

TO,
 SALZGITTER MANNESMANN INTER GM
 DUSSELDORF, 40476
 DE

TC No 2017-18 / 0400648966_21 / 7190003441
 Date 30.06.2017

We hereby certify that the material described herein have been tested and inspected with satisfactory results in accordance with the requirements of the above specification.
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 The product or packing material does not contain any hazardous substances as per ROHS

<p>Commercial Invoice : 7190003441 Sales Contract Number : 3009 Product : HOT ROLLED STEEL COILS, PICKLED with MUI Edge Process Route : BOF-LHF-CCM-RSM-CPL-APL</p>	<p>Legend: BOF = Basic Oxygen Furnace, LHF = Ladle Heating Furnace, CCM = Continuous Casting Machine, HSM = Hot Strip Mill, CPL = Continuous Pickling Line, CRM = Cold Rolling Mill, ECL = Electrolytic Cleaning Line, BAF = Batch Annealing Furnace, SPV = Skin Pass Mill, RCL = Recoiling Cum Inspection Line, APL = Automatic Packaging Line, PLTCM = Pickling Cum Tandem Mill, CGL = Continuous Galvanizing line CAL = Continuous Annealing Line, CTL = Cut to Length, HRS = HR Sifters, HTL = HR Cut to Length</p>	<p>T x W x T = Thickness x Width x Length, Chemistry = Ladle Sample Analysis, IMPa = IN/mm², YS = Yield Strength, UTS = Ultimate Tensile Strength, EL = %g: Elongation on Standard Gauge Length GSM = Grams per Square Meter Oil Type : Q</p>	<p>Certified By  A. Prasad CANISH JINDAL</p>
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STEEL LIMITED

Vijayanagar Works, PO: Vidyannagar, Village: Tornagalli, Dist: Bellary, Karnataka-583275, INDIA
 Regd. Office: JSW Centre, Bandra Kurla Complex, Bandra (East), Mumbai-400051.

MILL TEST CERTIFICATE (According to EN 10204 - 3.1)

TO,
 SALZGITTER MANNESMANN INTER GM
 DUSSELDORF, 40476
 DE
 TCNo 2017-18 / 0400648966_31 / 7190003441
 Date 30.06.2017

Product: Hot Rolled Pickled and/or Oiled										Chemical Composition & Mechanical Properties										Remarks		
Cast/Heat No.	Coil No.	T	X	W	X	L	L	Net Wt.	Gross Wt.	C %	Mn %	S %	P %	Si %	Al %	B %	N %	YS MPa	UTS MPa	EL %	GL mm	Bend Test
Specification : EN 10149_2_2005 S355MC																						
G715176	7629730000	5.000	X	1500.0	X	Coil	28.670	28.770	0.083	0.600	0.005	0.011	0.010	0.010	0.050	0.0001	0.0046	408	492	33.00		Pass
F715154	176831285	5.000	X	1500.0	X	Coil	25.720	25.805	0.080	0.630	0.005	0.013	0.007	0.044	0.0001	0.0034	400	477	37.00	5.65 SA		Pass
G715176	176831303	5.000	X	1500.0	X	Coil	27.180	27.270	0.083	0.600	0.005	0.011	0.010	0.050	0.0001	0.0046	409	495	31.00	5.65 SA		Pass
F715154	7627270000	5.000	X	1500.0	X	Coil	28.880	28.975	0.080	0.630	0.005	0.013	0.007	0.044	0.0001	0.0034	376	475	33.00			Pass
G715176	7627260000	5.000	X	1500.0	X	Coil	28.605	28.710	0.083	0.600	0.005	0.011	0.010	0.050	0.0001	0.0046	416	495	34.00			Pass
E715180	7627240000	5.000	X	1500.0	X	Coil	28.655	28.755	0.088	0.600	0.005	0.011	0.005	0.050	0.0001	0.0051	388	490	32.00	5.65 SA		Pass
E715180	7626600000	5.000	X	1500.0	X	Coil	25.185	25.275	0.088	0.600	0.005	0.011	0.005	0.050	0.0001	0.0051	388	490	32.00	5.65 SA		Pass
E715180	7624910000	5.000	X	1500.0	X	Coil	25.325	25.410	0.088	0.600	0.005	0.011	0.005	0.050	0.0001	0.0051	388	490	32.00			Pass
F715170	7624640000	5.000	X	1500.0	X	Coil	28.735	28.820	0.077	0.610	0.005	0.015	0.009	0.048	0.0001	0.0040	392	484	33.00			Pass
E715180	176831381	5.000	X	1500.0	X	Coil	23.550	23.640	0.088	0.600	0.005	0.011	0.005	0.050	0.0001	0.0051	388	490	32.00	5.65 SA		Pass
Total Weight in Metric Tonnes							270.505	271.430														
Total no of Batches							10															



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MILL TEST CERTIFICATE (According to EN 10204 - 3.1)

TO,
SALZGITTER MANNESMANN INTER GM
DUSSELDORF, 40476
DE
TC No 2017-18 / 0400648966 _ 31 / 7190003441
Date 30.06.2017

We hereby certify that the material described herein have been tested and inspected with satisfactory results in accordance with the requirements of the above specification.
This is to certify that the above mentioned product produced & supplied by JSW Steel Ltd do not contain any radio active element higher than the natural level
The product or packing material does not contain any hazardous substances as per ROHS

<p>Commercial Invoice : 7190003441 Sales Contract Number : 3099 Product : HOT ROLLED STEEL COILS, PICKLED AND OILED with Mill Edge Process Route : BOF-LHF-CCM-HSM-CPL-APL</p>	<p>Legend: BOF = Basic Oxygen Furnace, LHF = Ladle Heating Furnace, CCM = Continuous Casting Machine, HSM = Hot Strip Mill, CPL = Continuous Pickling Line, CRM = Cold Rolling Mill, ECL = Electrolytic Cleaning Line, BAP = Batch Annealing Furnace, SPM = Skin Pass Mill, RCL = Recoiling Cum Inspection Line, APL = Automatic Packaging Line, PLTCM = Pickling Cum Tandem Mill, CGL = Continuous Galvanizing line, CAL = Continuous Annealing Line, CTL = Cut to Length, HRS = HR Slitters, HTL = HIT Cut to Length</p>	<p>T x W x T = Thickness x Width x Length, Chemistry = Ladle Sample Analysis, IMPa = N/mm², YS = Yield Strength, UTS = Ultimate Tensile Strength, EL = %age Elongation on Standard Gauge Length GSM = Grams per Square Meter OI Type = Q</p>		<p>Certified By <i>Ajinkya JINPAU</i> CAVISH JINPAU</p>
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STEEL LIMITED

Vijayanagar Works, PO: Vidyannagar, Village: Tornagallu, Dist: Bellary, Karnataka-583275, INDIA
 Regd. Office: JSW Centre, Bandra Kurla Complex, Bandra (East), Mumbai-400051.

MILL TEST CERTIFICATE (According to EN 10204 - 3.1)

TO,
 SALZGITTER MANNESMANN INTER GM
 DUSSELDORF, 40476
 DE

TCNo 2017-18 / 0400648966_41 / 7190003441
 Date 30.06.2017

Product: Hot Rolled Pickled and/or Oiled										Chemical Composition & Mechanical Properties										Remarks				
Cast/Heat No.	Coil No.	T	X	W	X	L	L	Net Wt.	Gross Wt.	C	Mn	S	P	Si	Al	B	N	YS	UTS	EL	GL	Bend Test	Bend Test	
																								%
Specification : EN 10149_2_2005 S355MC																								
										MIN →														
										← MAX														
F715170	7674900000	6.000	X	1500.0	X	Coil	28.585	28.680	0.077	0.610	0.005	0.015	0.009	0.048	0.0001	0.0040	402	480	33.00	33.00			Pass	
F715154	176S31307	6.000	X	1500.0	X	Coil	25.880	25.965	0.080	0.650	0.005	0.013	0.007	0.044	0.0001	0.0034	376	471	34.00	34.00	5.65 SA		Pass	
D708836	7612420000	6.000	X	1500.0	X	Coil	25.410	25.495	0.080	0.600	0.005	0.015	0.020	0.049	0.0001	0.0058	406	483	30.00	30.00			Pass	
E715180	176S31306	6.000	X	1500.0	X	Coil	24.260	24.345	0.088	0.600	0.005	0.011	0.005	0.050	0.0001	0.0051	415	489	33.00	33.00	5.65 SA		Pass	
G715176	176S31305	6.000	X	1500.0	X	Coil	27.755	27.845	0.083	0.600	0.005	0.011	0.010	0.050	0.0001	0.0046	398	489	31.00	31.00	5.65 SA		Pass	
G715153	176S31304	6.000	X	1500.0	X	Coil	27.875	27.965	0.074	0.590	0.005	0.012	0.008	0.048	0.0001	0.0041	399	475	33.00	33.00	5.65 SA		Pass	
F715154	176S31313	6.000	X	1500.0	X	Coil	24.499	24.575	0.080	0.650	0.005	0.013	0.007	0.044	0.0001	0.0034	398	483	34.00	34.00	5.65 SA		Pass	
F715161	176S31316	6.000	X	1500.0	X	Coil	23.670	23.760	0.088	0.650	0.005	0.012	0.006	0.040	0.0001	0.0032	425	496	29.00	29.00	5.65 SA		Pass	
F715154	176S31319	6.000	X	1500.0	X	Coil	23.520	23.605	0.080	0.650	0.005	0.013	0.007	0.044	0.0001	0.0034	392	482	33.00	33.00	5.65 SA		Pass	
F715161	176S31370	6.000	X	1500.0	X	Coil	22.750	22.840	0.088	0.650	0.005	0.012	0.006	0.040	0.0001	0.0052	425	496	29.00	29.00	5.65 SA		Pass	
F715170	176S31368	6.000	X	1500.0	X	Coil	22.690	22.765	0.077	0.610	0.005	0.015	0.009	0.048	0.0001	0.0040	402	480	33.00	33.00	5.65 SA		Pass	
G708835	176S20981	6.000	X	1500.0	X	Coil	20.665	20.740	0.072	0.600	0.005	0.010	0.022	0.050	0.0001	0.0038	402	483	33.00	33.00	5.65 SA		Pass	
Total Weight in Metric Tonnes																				297.550				
Total no of Batches																				12				



STEEL LIMITED

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Regd. Office: JSW Centre, Bandra Kuria Complex, Bandra (East), Mumbai-400051.

MILL TEST CERTIFICATE (According to EN 10204 - 3.1)

TO,
SALZGITTER MANNESMANN INTER GM
DUSSELDORF, 40476
DE

TCNo : 2017-18 / 0400648966 _ 41 / 7190003441
Date : 30.06.2017

We hereby certify that the material described herein have been tested and inspected with satisfactory results in accordance with the requirements of the above specification.

This is to certify that the above mentioned product produced & supplied by JSW Steel Ltd do not contain any radio active element higher than the natural level.

The product or packing material does not contain any hazardous substances as per ROHS

Commercial Invoice : 7190003441
Sales Contract Number : 3089
Product : HOT ROLLED STEEL COILS, PICKLED AND OILED with Mill Edge
Process Route : BOF-LHF-CCM-HSM-CPL-APL

Legend: BOF = Basic Oxygen Furnace, LHF = Ladle Heating Furnace, CCM = Continuous Casting Machine, HSM = Hot Strip Mill, CPL = Continuous Pickling Line, CRM = Cold Rolling Mill, ECL = Electrolytic Cleaning Line, BAF = Batch Annealing Furnace, SPM = Skin Pass Mill, RCL = Recoiling Cum Inspection Line, APL = Automatic Packaging Line, PLTCM = Pickling Cum Tandem Mill, CGL = Continuous Galvanizing line, CAL = Continuous Annealing Line, CTL = Cut to Length, HRS = HR Sifters, HTL = HR Cut to Length

T x W x T = Thickness x Width x Length, Chemistry = Ladle Sample Analysis, YMPa = Yield Strength, YS = Yield Strength, UTS = Ultimate Tensile Strength, EL = % Elongation on Standard Gauge Length, GSM = Grams per Square Meter, Oil Type : Q

Certified By
A. Jindal
CANISH JINDAL