



STEEL LIMITED

Viyanagar 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	
																								Net Wt.
E708550	176831530	4.000	X	1500.0	X	Coil	23.075	22.980	0.080	0.630	0.005	0.015	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	19.810	19.725	0.088	0.600	0.005	0.011	0.005	0.030	0.0001	0.0051	421	506	30.00	5.65 SA	Pass			
F715166	176831577	4.000	X	1500.0	X	Coil	21.255	21.180	0.077	0.600	0.005	0.012	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	28.820	28.720	0.077	0.600	0.005	0.012	0.010	0.046	0.0001	0.0045	399	493	31.00	5.65 SA	Pass			
Total Weight in Metric Tonnes							92.605																	
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-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,
 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
 CAVNISH JINDAL



STEEL LIMITED

Vijayanagar Works, PO: Vidyanagar, Village : Tornagallu, Dist: Bellary, Karnataka-583275, INDIA
 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

TC No 2017-18 / 0400648966 _11 / 7190003441
 Date 30.06.2017

		Chemical Composition & Mechanical Properties																						
Cast/Heat No.	Coil No.	Product: Hot Rolled Pickled and/or Oiled			T	X	W	X	L	L	C	Mn	S	P	Si	Al	B	N	YS MPa	UTS MPa	EL %	GL mm	Bend Test	Remarks
		MIN	MAX	Net Wt.																				
Specification : EN 10149_2_2005 S355MC																								
G715153	7631580000	3,000	X	1500.0	X	Coil				0.074	0.590	0.005	0.012	0.008	0.048	0.0001	0.0041	384	470	30.00	5.65 SA	Pass		
F715166	176831287	3,000	X	1500.0	X	Coil				0.077	0.600	0.005	0.012	0.010	0.046	0.0001	0.0045	416	501	34.00	5.65 SA	Pass		
G715153	762722000	3,000	X	1500.0	X	Coil				0.074	0.590	0.005	0.012	0.008	0.048	0.0001	0.0041	384	470	30.00	5.65 SA	Pass		
G715149	762719200	3,000	X	1500.0	X	Coil				0.079	0.610	0.005	0.015	0.008	0.042	0.0001	0.0039	410	489	36.00	5.65 SA	Pass		
G715153	762700200	3,000	X	1500.0	X	Coil				0.074	0.590	0.005	0.012	0.008	0.048	0.0001	0.0041	402	486	32.90		Pass		
F715166	176831530	3,000	X	1500.0	X	Coil				0.077	0.600	0.005	0.012	0.010	0.046	0.0001	0.0045	416	501	34.00	5.65 SA	Pass		
F715161	176831385	3,000	X	1500.0	X	Coil				0.088	0.650	0.005	0.012	0.006	0.040	0.0001	0.0052	412	492	30.00	5.65 SA	Pass		
		Total Weight in Metric Tonnes										164.605		165.205										
		Total no of Batches										7												



Jsw STEEL LIMITED

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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 _ 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, CTL = Continuous Galvanizing line, CAL = Continuous Annealing Line, 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, IMPa = 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
CAVISH JINDAL



STEEL LIMITED

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

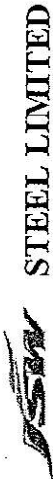
MILL TEST CERTIFICATE (According to EN 10204 - 3.1)

TO,
 SALZGITTER MANNESMANN INTER GM
 DUSSELDORF, 40476
 DE

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

Product: Hot Rolled Pickled and/or Oiled										Chemical Composition & Mechanical Properties														
Cast/Heat No.	Coil No.	T	X	W	X	L	L	MIN		Gross Wt.	C	Mn	S	P	Si	Al	B	N	YS	UTS	EL	GL	Bend Test	Remarks
								Net Wt.	MAX															
G715176	7628290000	4.000	X	1500.0	X	Coil	28.775	28.685	28.775	0.083	0.600	0.005	0.011	0.010	0.030	0.0001	0.0046	399	486	37.00	5.65 SA	Pass		
F715170	7628090000	4.000	X	1500.0	X	Coil	28.920	28.825	28.920	0.077	0.610	0.005	0.015	0.009	0.048	0.0001	0.0040	391	480	31.00	5.65 SA	Pass		
F715170	7626420000	4.000	X	1500.0	X	Coil	28.880	28.795	28.880	0.077	0.610	0.005	0.015	0.009	0.048	0.0001	0.0040	391	480	31.00	5.65 SA	Pass		
F715170	176531410	4.000	X	1500.0	X	Coil	26.065	25.975	26.065	0.077	0.610	0.005	0.015	0.009	0.048	0.0001	0.0040	391	480	31.00	5.65 SA	Pass		
F715166	176531405	4.000	X	1500.0	X	Coil	26.150	26.060	26.150	0.077	0.600	0.005	0.012	0.010	0.046	0.0001	0.0045	426	498	37.00	5.65 SA	Pass		
G715176	176531367	4.000	X	1500.0	X	Coil	26.075	26.075	26.170	0.083	0.600	0.005	0.011	0.010	0.050	0.0001	0.0046	412	451	31.00	5.65 SA	Pass		
F715166	176531366	4.000	X	1500.0	X	Coil	27.605	27.505	27.605	0.077	0.600	0.005	0.012	0.010	0.046	0.0001	0.0045	426	498	37.00	5.65 SA	Pass		
F715161	176531358	4.000	X	1500.0	X	Coil	20.170	20.095	20.170	0.088	0.650	0.005	0.012	0.006	0.040	0.0001	0.0052	392	487	36.00	5.65 SA	Pass		
Total Weight in Metric Tonnes							212.735	212.015	212.735															
Total no of Batches							8																	

Specification : EN 10149_2_2005 S355MC



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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_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

Commercial Invoice : 7190003441
 Sales Contract Number : 3009
 Product : HOT ROLLED STEEL COILS, PICKLED
 AND OILED
 with MUI Edge
 Process Route : BOF-LHF-CCM-RSM-CPL-AFL

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, FLTCM -
 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,
 IMPa = IN/mm², YS = Yield Strength, UTS = Ultimate Tensile Strength, EL =
 % Elongation on Standard Gauge Length
 GSM = Grams per Square Meter
 Oil Type : Q

Certified By
 A. P. Jindal
 CANISH JINDAL



STEEL LIMITED

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 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_31 / 7190003441
 Date 30.06.2017

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
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																



STEEL LIMITED

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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.
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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 : 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 = Hot 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>Avinash Jindal</i> CAVISH JINDAL</p>
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STEEL LIMITED

Vijayanagar Works, PO: Vidyannagar, Village: Tornagallu, Dist: Bellary, Karnataka-583275, INDIA
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.

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Commercial Invoice : 7190003441
Sales Contract Number : 3009
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
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fMPa = fN/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
GANESH JINDAL