

		ITEM (MATERIAL, CLASS, GRADE, RATING, RANGE, SIZE ETC.) MS PIPES (BLACK & GALVANIZED)	STANDARD QUALITY PLAN		QP NO:0000-999-QOM-S-001 REV.NO. 02 DATE : 04.03.2016 PAGE 1 OF 1 VALID UPTO: 03.03.2019			REVIEWED BY: U SUDEEP RAJEEV KR JAIN R K JHA		APPROVED BY: K K OJHA			
			CONFORMING TO CODE: IS : 1239 (PART-I) / IS:3589										
SI NO	COMPONENT & OPERATION	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK		REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD		AGENCY		REMARKS
					M	C/N				D*	M	C	N
1	2	3	4	5	6		7	8	9		** 10		11
1.0	Raw Materials												
	Plate / Sheet /Strip	Thickness & Width	Major	Measurement	100%	100%	IS 1239 (Part-1) / IS 3589 / NTPC Tech Spec	IR	√	P	V	V	
		Visual	Major	Visual Check	100%	-	IS 1239 (Part-1) / IS 3589 / NTPC Tech Spec	IR		P	-	-	
		Chemical & Mechanical Properties	Major	Chemical & Mechanical Test	1 / Heat	1/Heat	IS 1239 (Part-1) / IS 3589 / NTPC Tech Spec	Mill TC	√	P	V	V	
2.0	Final Inspection												
2.1	Pipe	Dimensions, Straightness, Ovality & End Connections	Major	Measurement	Sampling as per IS 4711		IS 1239 (Part-1) / IS 3589 / NTPC Tech Spec	IR	√	P	W	W	
2.2		Visual Inspection, Appearance, workmanship & Bead Removal	Major	Verification			IS 1239 (Part-1) / IS 3589 / NTPC Tech Spec	IR	√	P	W	W	
2.3		Mechanical Properties	Major	Tensile Strength, Yield strength & % Elongation, Flattening test / Bend Test for ERW pipe / Guided bend test for SAW pipe			IS 1239 (Part-1) / IS 3589 / NTPC Tech Spec	IR	√	P	W	W	
2.4	Galvanizing (if applicable)	Finish / Surface Condition	Major	Visual Check	100%	100%	IS 4736	IR	√	P	W	W	
		Uniformity of Zinc Coating	Major	Dip Test	Sampling as per IS 4736		IS 2633	IR	√	P	W	W	
		Thickness of Coating, Mass of Zn Coating, Adhesion of Zinc Coating, Free Bore Test	Major	Measurement & Verification			IS 4736	IR	√	P	W	W	
2.5	Hydro Test	Leakage	Critical	Hydraulic Pressure Test	100%	5% (See Note 3)	IS 1239 (Part-1) / IS 3589 / NTPC Tech Spec	IR	√	P	W	W	selected at random
2.6	Finished Pipe	Identification & Marking	Major	Visual	100%	Sampling as per IS 4711	IS 1239 (Part-1) / IS 3589 / NTPC Tech Spec	IR	√	P	W	W	

Note 1: Skelp Joint (in the case of Spiral Welded pipes to IS 3589) shall be at least 12" from the pipe end.

Note 2: In case of Pipes for Rubber Lining application, internal Bead shall be removed.

Note 3: Quantum of Check for NTPC Witness for SI no 2.1, 2.2, 2.3, 2.4 & 2.5 shall be decided based on the size & quantity of pipes envisaged in the order. Same shall be tied up during Quality plan finalization for that order / during endorsing SQP.

Note 4: Surface protection (Outside & Inside) shall be as per NTPC Technical Specs/Approved Drawing/Datasheet.

LEGEND: * RECORDS IDENTIFIED WITH "TICK (√) SHALL BE ESSENTIALLY INCLUDED BY SUPPLIER IN QA DOCUMENTATION.

** M:MANUFACTURER/SUB-SUPPLIER C:MAIN SUPPLIER, N. NTPC P:PERFORM W:WITNESS AND V:VERIFICATION AS APPROPRIATE,

CHP: NTPC SHALL IDENTIFY IN COLUMN "N" AS "W".