

DECLARATION REGARDING TEST EQUIPMENTS

(IS 2830:2012)

Sl.No.	Test Equipment /Chemicals & Identification Numbers (where applicable)	Least Count & /Range (where Applicable)	Valid Calibration (where Required Yes/No)	Test used in with Clause reference	Remarks indicate number of Equipments
1.	Visual Inspection	-	-	Freedom from defects (Cl 9)	
2.	i) Cleaning Agent; ii) Stiff Fibre Brush; iii) Heater; iv) Etching Reagent resistant Container; and v) Etching Reagents as per Table 1 of IS 11371 vi) Thermometer vii) Stop Watch	0-100°C, LC 1°C	NO	Macro examination (Cl 10.1 a)	As appropriate
3.	i) Bromide Photographic Paper; ii) Sulphuric Acid; and iii) Sodium thiosulphate iv) Water Bath with Heater v) Stop Watch	-	-	Sulphur Print Tests (Cl 10.1 b)	As appropriate
4.	i) Cord; ii) Measuring Tape; and iii) Depth Gauge or Vernier Caliper iv) Straight Edge	i) 0-15m, LC 1mm ii) 0-15m, LC 1 mm iii) 0-300 mm, LC 0.02 mm iv) 0-1 m, LC 1 mm	NO NO Yes NO	Bend Test (Cl 10.2); and Camber Test (Cl 10.3)	one one one one
5.	i) Measuring Tape; and ii) Vernier Caliper	i) 0-15 m, LC 1mm ii) 0-300 mm, LC 0.02 mm	Yes Yes	Dimensions (Cl 11)	one one
6.	Spectro Photo Meter Make : Model : S.No. :	No. of Elements	Yes	<u>Chemical Composition**</u> (Cl 6.1, 6.2 & 6.3) Ladle Analysis & Check Analysis	one
	AND/OR Carbon Sulphur (Strohlein's type) Apparatus – Complete set consisting of glass parts assembled on wooden stand , combustion furnace ,	0-1.5%, LC 0.025%	NO		

	thyrister based electronic control panel, oxygen cylinder , combustion tubes/ boats etc.			Chemical Composition (Cl 6.1, 6.2 & 6.3) Ladle Analysis & Check Analysis	
	Combustion furnace	0-1600°C, LC 1°C)	Yes		one
7.	Electronic Balance	0-210 gm, LC 0.01mg)	Yes		1
8.	Hot plate	0-100°C,	No		1
9.	Muffle furnace	0-1200°C,	Yes		1
10.	Barometer	(60-81 cm Hg)	No		1
11.	Thermometer	0 - 110°C, LC 1°C	Yes		1
12.	Distilled water plant	-	No		1
13.	Burette with stand	0-50ml, 1 ml	No		4
	Measuring cylinder	0-50ml, 1 ml	No		4
14.	Pipette	0-10ml, 1 ml	No		1 Each
		0-20ml, LC 2 ml	No		1 Each
15.	Full Range of Lab. Glassware like : Conical Flasks ,Beakers, Funnel, Pipettes , Glass rod, watch Glass, Brush etc.	NA	No		6 Each
16.	Standard Reference Material NML		With Certificate		1
17.	Platinum/Silica Crucible for Silicon Test & Decicator		No		1 Each
18.	Watt Man Filter Paper (No.41) & Ash less clippings				1 Packet each
19.	Arrangement for Nitrogen testing				
20.	Drilling Machine		No	for drilling samples for chemical tests	1
21.	LIST OF CHEMICALS:				
1.	Hydrochloric acid			Chemical Composition (Cl 6.1, 6.2 & 6.3) Ladle Analysis & Check Analysis	1
2.	Nitric acid				1
3.	Suphuric acid				1
4.	Orthophosphorus				1
5.	Oxalic Acid				1

6.	Hydrofluic acid				1
7.	Ammonioa Solution				1
8.	Ammonium Persulphate				1
9.	Ammonium chloride				1
10.	Ammonbium Molybadate				1
11.	Ammonium phosphate				1
12.	Ammonium Nitrate				1
13.	Acetone				1
14.	Blue Litmus paper				1
15.	Citric Acid				1
16.	Cadmium chloride				1
17.	Calcium chloride				1
18.	Methyl Red Solution				1
19.	Methyl Orange				1
20.	Methanol				1
21.	Potassium Nitrate				1
22.	Pottassium hydroxide				1
23.	Pottassium permenente				1
24.	Pottasium Dichromate				1
25.	Pottasium Iodate				1
26.	Pottassium Iodide				1
27.	Phenolphthalein				1
28.	Sodium hydroxide				1
29.	Sodium Chloride				1

30.	Sodium Nitrate				1
31.	Sodium Thiosulphate				1
32.	Silver Nitrate				1
33.	Sodium Carbonate				1
34.	Sodium Arsenite				1
35.	Starch				1
36.	Lead oxide				1

****The methods as specified in relevant ISO Standards may also be followed as an alternate method**