HINDUSTAN PREFAB LIMITED

(A Govt. of India Enterprise)
Jangpura, New Delhi-110014

Construction of 1670 MT capacity Food Grain Godown including Infrastructural Development at Aalo in State of Arunachal Pradesh.

NIT NO: HPL/DGM(C)/TC/FCI/2017-18/97 dated: 09.01.2018

SPECIFICATIONS AND MAKES

ISSUED TO : M/s. _____

_____

_____

Ph- (011) 43149800-899, Fax: (011) 26340365 E-mail:- hindprefab@gmail.com Website:www.hindprefab.in

Specifications : General

All works for Civil, plumbing , Electrical and External development works shall be executed as per latest CPWD and IS Specification amended upto date .

Specifications of Galvalume sheeting

Galvalume sheets shall conform to AZ 150 of AS 1397 or ASTM 792 with hot-dip metallic coating of 55% Al and 45% Zn alloy having total coating mass of min. 150 gms/m2 inclusive of both sides. Accessories such as ridge capping, corner closing pieces (barge capping), single ridge capping with or without up-stand, apron flashings, cover flashings/edge trimmings, louvres etc. shall be as per manufacturer's specifications to suit the type of roof sheeting. The accessories shall have same specifications as of roof/cladding sheets as far as colour, material, thickness, protective coating etc. The shape of accessories shall be as per drawings and generally shall suit the profile of the sheets. Overlaps shall be minimum 150 mm

Laying and Fixing :The sheets shall be ordered in lengths suitable for minimising the number of end laps. Suitability for handling and transporting the sheets shall also be given due importance in deciding the sheet length. Sheet length shall be such that the end laps fall on a purlin. Roof sheets shall be laid so that corrugations are in the direction of the roof slope. Laying of roof sheets shall begin at the lowest level/eaves portion and away from the direction of the most prevalent wind direction. When the roof slopes are less than 15o or rainfall intensity is expected to be higher than 45 mm/hour, then troughs between the crests of the sheet at the ridge of the roof shall be turned up through 80o degrees and at lower edge/eaves turned down through 80 degrees by using turn-up tool. Sequence of work shall be first the roofing, eaves gutter work and then side cladding. Wall sheeting shall be laid with corrugations vertical. Laying of wall sheeting shall be started at one end and shall be laid to have side lap away from the direction of the most prevalent wind. Also this shall be in line with manufacturer's specifications. During sheet-work workers shall wear footwear with soft soles (non-scratch producing) and workers shall not step on crests (step only in troughs) and damage the profile of the sheets. The use of cat ladders/planks is recommended. Sheet laying shall be started after ensuring that all required sheeting, accessories, fixings are available at site and their shortfall will not hold up the sheet work. Notching tool shall be used for making notches in copings and flashings.

Acceptance Criteria The installation of sheeting work shall be accepted if the installation presents a neat appearance, if NO external light is visible when viewed from inside especially through the gaps at laps, joints, flashings, or no cracks are visible, and if the installation is water tight when tested. Following aspects shall be checked for acceptance:

a. Soundness of sheets and accessories Absence of cracks, holes, punctures, dents, scratches, consistency of colour shade, crests shall be parallel to sheet edges, consistent thickness of sheet, warping, broken/non smooth edges etc.

b. Correct laying sequence and method Especially adequate side and end laps, direction of laying, mitring.

c. Fixings Size of bolts, number of bolts and bolt spacing, size and number of washers, caps, method of making hole for bolts and its size, bolt material.

d. Adequate and proper installation of flashing to make installation water tight.

e. Gutter and down-take Line, level, slopes, consistency and uniformity of size and shape, proper jointing, adequate brackets.

f. Hydrotesting of gutters and down-takes for water tightness, integrity and stability.

LIST OF APPROVED VENDORS - CIVIL ITEMS

Ser No	Description of items	Approved Vendors
1	Anti-Termite Treatment (Executing Agency)	(i) M/s Kitensa Corporation, Kolkata (ii) M/s D-Nocil, Mumbai (iii) M/s Montari Industries Ltd., New Delhi
2	Chemical Manufacturer for Anti-Termite Treatment	**(a) CHLORO-PHYRIPHOS EMULSIFIABLE CONCENTRATE** (i) M/s Kitnesa Corporation, Kolkata (ii) M/s D Nocil, Mumbai (iii) M/s Montari industries Ltd, New Delhi
3	Cement	(i) M/s Ultratech Cement (ii) M/s ACC (iii) M/s Birla Corp Ltd
4	Concrete Additives	(i) M/s Pidilite Industries (Brand – Dr Fixit) (ii) M/s STP Ltd (Brand – Shalicon 37, Shalicon 537) (iii) M/s Fosroc Chemicals
5	TMT Steel	(i) M/s SAIL (ii) M/s TISCO (iii) M/s RINL
6	Structural Steel	(i) M/s SAIL (ii) M/s TISCO (iii) M/s RINL

7	Steel Windows and Rolling Shutters	(i) Approved Factory Made
8	Glass plain	(i) Saint Gobain (ii) Modiguard (iii)
9	/ Synthetic Enamel Paint /Primers(First quality)	(i) M/s Asian Paints Ltd (Apcolite/Professional). (ii) M/s Berger Paints India Ltd (Luxol). (iii) M/s ICI India Ltd (Dulux Hi-Gloss).
10	Galvalume SHEETING	M/s Metacolour M/s Tata,M/s Jindal ,Mectac,Rinac
11	Pre Engineered Building Fabrication(Specialist Agency	Pathway Engineering Co Ltd Kolkata, Exodus Ispat Pvt Ltd Kolkata, Buildstar infra pvt ltd, Kolkata, Saftech Group, Kolkta or as approved by Engineer In Charge and client in the local area / State of Meghalaya & Assam.

LIST OF APPROVED VENDORS – ELECTRICAL ITEMS

Ser No	Description of items	Approved Vendors
1	Ceiling Fans / Exhaust Fans / Ventilation Fans / Kitchen Fan	Usha International Ltd (USHA) / Crompton Greaves Ltd / Orient fans (ORIENT) / Khaitan Electricals Ltd (KHAITAN) / Havells India Ltd (HAVELLS) / Bajaj Electricals Ltd
2	Luminaries	Controls & Switchgear Gewiss India (P) Ltd / Khaitan Electricals Ltd / Havells India Ltd / General Electric (GE) / Philips / Bajaj Electricals Ltd / Crompton Greaves / Wipro
3	Modular switches	(i) M/s L & T (ORIS) (ii) M/s Finolex Cables (iii) M/s Havells India Ltd (Crabtree), NOIDA.
4	Ordinary switches	(i) M/s Finolex Cables (ii) M/s Ess Ess kay Engg co Pvt Ltd, Kapurthala
5	Prewired distribution board	(i) M/s Controls & Switchgear Gewiss India (P) Ltd. (ii) M/s Havells India Ltd. (iii) M/s Indo Asian Fuse Gear Ltd, Noida.
6	Energy Meter	(i) M/s Havells India Ltd (ii) M/s SECURE (iii) M/s L & T (iv) M/s Bentec Electricals and Electronics Pvt Ltd (v) M/s HPL
7	Electric Call Bell	(i) M/s Havells India Ltd (Crabtree), NOIDA. (ii) M/s Ess Ess Kay Engg Co Pvt Ltd, New Delhi / Kapurthala. (iii) M/s Wylex Industries
8	CFLs	Phillips / Crompton Greaves Ltd / M/s Bajaj Electricals Ltd / M/s Havells India Ltd, NOIDA.
9	Junction boxes	Power System & Control / M/s Controls & Switchgear Gewiss India (P) Ltd / M/s General Electric (GE) /
10	Measuring Instruments	M/s Jyoti / M/s Siemens / M/s Havells / M/s Universal / M/s Crompton Greaves / Stanley
11	Telephone/TV Co-Axial Cable	(i) M/s Finolex Cables Ltd (Brand - Finolex) (ii) M/s Havells India Ltd (Brand - Havells) (iii) M/s Gloster Cables Ltd *Brand - Gloster) s L & T

LIST OF APPROVED VENDORS - ELECTRICAL ITEMS (CONTD…)

18	PVC Insulted copper wires Domestic	(i) M/s Finolex Cables Ltd (Brand - Finolex) (ii) M/s Havells India Ltd (Brand – Havells) (iii) M/s Gloster Cables Ltd (Brand - Gloster) (iv) M/s Polycab wires Pvt Ltd (Brand - Polycab) (v) M/s RK Electricals Industries (India), (Kalinga Gold))
19	MCCB	(i) M/s Indo Asian Fuse gear Ltd (Brand – Indoasian) (ii) M/s Havells India Ltd (Brand – Havells) (iii) M/s HPL India Ltd (iv) M/s GE India Industrial Pvt Ltd (v) M/s Bentec Electricals and Electronics Pvt Ltd
20	MCB, ELCB, RCB	(i) M /s Siemens. (ii) M/s Havells India Ltd (Crabtree), NOIDA. (iii) M/s Standard Electricals Ltd (iv) M/s Indo Asian Fuse gear Ltd, Noida. (v) M/s HPL India Ltd, New Delhi. (vi)
21	Energy Efficient Tube light	(i) M/s Philips India Limited (ii) M/s WIPRO Ltd (iii) M/s Crompton Greaves (iv) M/s Asian Electronics Ltd

LIST OF APPROVED MAKES PLUMBING WORKS

S. NO.	MATERIAL DESCRIPTION	NAME OF MANUFACTURER
1	VITREOUS CHINA SANITARYWARE	PARRYWARE / HINDWARE / CERA.
2	PLASTIC W.C.SEATS & COVERS	PARRYWARE / HINDWARE / CERA.
3	C.P. FITTINGS: BIB COCK (LONG BODY/SHORT BODY), PILLAR COCK, SINGLE HOLE BASIN MIXTURE, WALL MIXER, SHOWER MIXER, ANGLE VALVE, CONCEALED STOP COCK, SHOWER WITH WALL FLANGE, C.P. WASTE 32-40 mm DIA,BOTTLE TRAP, HEALTH FAUCET, BRAIDED CONNECTION PIPE.	PARRYWARE / CERA /KINGSTON/ VIJAY METAL INDUSTRIES / JAQUAR AND COMPANY LIMITED
5	TOWEL RING, TOWEL ROD, TOWEL RACK, COAT HOOK etc. (304 Grade S.S.)	JAQUAR/VIJAY METAL INDUSTRIES/ PARRYWARE
6	CHROMIUM PLATED / STAINLESS STEEL GRATINGS.	VIJAY METAL INDUSTRIES
7	STAINLESS STEEL SINK	JAYNA /NEEL KANT/NIRALI
8	SAND CAST IRON SPUN PIPE,CENTIFUGALLY CASTED S & S AS PER IS: 3989	NECO LIMITED/ HEPCO/BP
9	CAST IRON PIPE, HORIZONTALLY / VERTICALLY CASTED S & S AS PER IS:1729	SHINING ENGINEERING WORKS (FOUNDRY) AGRA./ JAYSWAS NECO LIMITED/ RAJ IRON FOUNDRY/ HEPCO/BP
10	G.I. & M.S. PIPES PART-I IS: 1239 UPTO 150 mm AND M.S. PIPES PART-II IS: 3589 ABOVE 150 mm	TATA STEEL (TUBE DIVISION)/ JINDAL PIPES LIMITED
11	G.I. AND M.S. FITTINGS	UNIK/ZOLOTO/R/KS/KENT.
12	uPVC PIPES & FITTINGS 4 kg./sqm, 6 kg./sqm, 10 kg./sqm PRESSURE.	SUPREME INDUSTRIES LIMITED/ FINOLEX INDUSTRIES/ PRINCE PIPES & FITTINGS PRIVATE LIMITED/JAIN IRRIGATION.
13	cPVC PIPES SDR12.5 SCHEDULE-40	ASTRAL POLYTECHNIC PRIVATE LIMITED/ ASHIRVAD ENTERPRISES PRIVATE LIMITED/ JAIN PLASTICS & CHEMICALS LIMITED

14	HDPE PIPE	JAIN PLASTICS & CHEMICALS LIMITED/ CHEMI PLAST INDUSTRIES STUROY POLYMERS LIMITED/ KISAN GROUP OF COMPANIES
15	C.I.CLASS LA PIPES	KESORMA SPUN PIPE & FOUNDRIES, CALCUTTA/ SUPER ENTERPRISES/ INDIAN IRON & CO. LTD. CALCUTTA.
16	R.C.C. PIPES	PRAGATI CONCRETE UDYOG/ K.K. SPUN PIPES/ J. K. SPUN PIPES
17	STONEWARE PIPES & GULLY TRAP	DEVRAJ ANAND CERAMIC (P) LIMITED./ PERFECT POTTERI JABAL PUR (MP)/ BURN POTTERIES, JABALPUR
18	GUNMETAL VALVES(FULLWAY, CHECK, GLOBE AND NON RETURN VALVES)	LEADER VALVES LIMITED/ AIP /ARKAY SALSE CARPORATION DELHI
19	BALL VALVE	TBS ENGINEERS PVT. LTD./ KIRLOSKAR / AIP/ AUDCO INDIA LIMITED
20	BUTTERFLY VALVE (LEVER TYPE)	LEADER VALVES LIMITED/ AIP / AUDCO INDIA LIMITED/KIRLOSKAR/LEADER/SANT/ZOLOTO
21	BUTTERFLY VALVE (GEAR TYPE)	LEADER VALVES LIMITED/ AIP VALVES/ AUDCO INDIA LIMITED/ KSB/KIRLOSKAR/ZOLOTO
22	C.I.DOUBLE FLANGED SLUICE VALVE & GATE VALVES	KIRLOSKAR BROTHERS LIMITED/ AARKO MANUFACTURING COMPANY/ AIP
23	FLOAT VALVE (GUNMETAL) UPTO 40M	SANT INDUSTRIAL CONTROLS (P) LIMITED/ BOMBAY METAL & ALLOYS/ LEADER VALVES LIMITED/AIP
24	FLOAT VALVE (CI) 50M AND ABOVE	LEADER VALVES LIMITED/ INDIAN VALVE CO. LTD. SANT / LEADER /AIP
25	FOOT VALVE / CHECK VALVES (BRASS)	LEADER VALVES LIMITED/ INDIAN VALVE CO. LTD. CALCUTTA/ ADVANCE VALVES (P) LIMITED/ SANT/AIP
26	AIR RELEASE VALVES (BRASS / CAST IRON)	LEADER VALVES LIMITED/ ADVANCE VALVES (P) LIMITED/ AARKO MANUFACTURING COMPANY/ KARTAR
27	C.I. MANHOLES COVER & G.I. GRATING	K. K. MANHOLE & GRATING CO. PRIVATE LIMITED/ BANGAL IRON COMPANY WEST BANGAL/ SHINING ENGINEERING WORKS (FOUNDRY) AGRA.
28	HAND DRIER (304 Grade S.S.)	EURONICS/ TOSHI /VIJAY METAL INDUSTRIES.