

GUJARAT STATE POLICE HOUSING CORPORATION
LIMITED, RAJKOT

:: ATTACHED SPECIFICATIONS ::

Name of Work: Special Repairs to Office Of The Assistant Director, Anti Corruption Bureau Border Unit at Bhuj ,Dist :- Kutch.(Including Electrification work)

Item No.21

Providing and fixing fire extinguishing grade FRP fiber glass reinforced sheet thickness of 2 mm av. on roof with silicon sealant of required colour and design and sheet to be waterproof weatherproof , termite proof and mild acid / alkali resistance including fixing with clamps , bolts , nuts etc complete

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1.0 Materials : FRP Fiber glass reinforced sheet shall conform as IS Standard.

2.0 Workmanship :

Spacing of purlins : One purlin shall be provided at the ridge and one at the eaves. The spacing of other purlins for 2.0 mm thick sheet shall not exceed 1.80 metre. The purlin shall coincide with the centre line of the end lap. The ridge purlins shall be placed in such a way that the ridges can be fixed properly.

The portion overhanging the wall support shall not be more than one fourth of the spacing of purlins.

The top surfaces of the purlins shall be painted before the sheets are fixed over them. Embedded portions of purlins shall be finished with two coats of coal tar.

3.0 Laying of sheets :

The sheets shall be laid in purlins to a true plane with the line of corrugations truly parallel or normal to the sides of area to be covered. The sheets shall not generally be built into gables and parapets. They shall be bent up along their side edges close to the wall, and the junction shall be protected by suitable flushing or by projecting drip course.

The laps at end shall be provided 150mm minimum for roof slopes 1 in 2 (1 vertical : two horizontal) and steeper but 200mm shall be provided for flatter

slopes than those above. The side lap shall be provided two ridges of corrugations at each side.

The sheets shall be cut to the dimensions or the shape of the roof either along their lengths or their width or in slant across the line of corrugations at hips and valleys. The sheets shall be cut carefully with a straight edge and chisel to give a straight finish. The sheets shall be laid such that the laps are turned away from the usual direction of local heavy rain.

4.0 Fixing of sheets :

Sheets shall be fixed to the purlins or other roof members such as hips or valley rafter etc. with 'J' or 'L' galvanised hook bolts, and galvanised nuts 8 mm dia. with bitumen impet washers and G.I.washers. Limpet washers with white lead shall be used. Length of hook bolt shall be varied to suit the site requirement. Bolts shall be sufficiently long so that after fixing the project above the top of their nuts by not less than 12mm. The grip of 'J' or 'L' hook bolts on the sides of purlins shall not be less than 25mm. There shall be minimum of three hooks bolts placed at the ridge of corrugations in each sheet in every purlin, and their spacing shall not exceed 300mm. coach screw shall not be used for fixing the sheets to purlins, where the slopes of roof are not less than 2.5 degree (1 vertical and 2.5 horizontal). Sheets shall be jointed together at the side laps by galvanised iron bolts and nuts 25mm x 6 mm size each bolt with a bitumen and G.I.limpet washer filled with white lead. Where the overlaps at the sides extend to two corrugations, these bolts shall be placed zig-zag over the two over lapping corrugations, so that the ends of the overlapping sheets are drawn tightly towards each other. The spacing of same bolts shall not exceed 600mm along each of the staggered rows.

Holes for all bolts shall be drilled and not punched in the ridges of the corrugations from the under side, while the sheets are on the ground. The holes in the sheets shall be atleast 50mm. from the edge. Sheets drilled wrongly shall be rejected. The holes in the washers shall be of the exact diameter of the hook bolts or the scam bolts. The nuts shall be tightened from above to give a leak proof roof.

The roof when completed shall be true to lines and slopes and shall be leak proof.

5.0 Mode of measurements and payment :

The measurements of the FRP sheet roof shall be taken for finished work in superficial area in general plane(not girthed on the roof). The laps between the FRP sheets both at their ends and along the side edges shall not be measured. The overlaps of FRP sheets over the valley piece and their underlap under the ridge, hip and flashing piece shall be included in the measurements.

No deductions in measurements shall be made for openings for chimney stacks, sky lights etc., of area up to 0.40 sq.mt. nor extra be paid for extra labour in cutting and for wastage etc. in forming such openings.

The rate of roof shall include the cost of all materials and labour involved in all operations described above. The rate also includes the cost of purlins, rafter and trusses.

The rate shall be for a unit of one sq.metre.

Signature of the contractor.

**I/c Executive Engineer
G.S.Police.Housing Corp.Ltd.
Rajkot**