

# दिल्ली सरकार प्रमुख अभियंता, लो०नि०वि०,

12वां तल, बहु-मंजिला भवन, इंद्रप्रस्थ संपदा, नई दिल्लीः 110002 🕾 23317926, 23724561, 23317520, फैक्स 23766924

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No.E-in-C/PWD/Works/NMET/2021/3031



Dated: 27-.08.2021

### OFFICE-MEMORANDUM

Sub:- Approval of New Product of Wall Cladding RACP (Real Stone Aluminium Composite Panel) on trial basis.

As per the guidelines issued by Directorate General, CPWD, New Delhi vide OM No. DG/New Product/16 dated 07.11.2019 for approval of New products, E-in-C, PWD, Delhi has approved the product "Real Stone Aluminium Composite Panel (RACP)" manufactured by M/s Alstone Industries Pvt Ltd, 2E/7, Jhandewalan Extension, New Delhi – 110055 for a period of two years from the date of issue of this OM. This Product (RACP) may be incorporated in the works of PWD, GNCT Delhi depending on the requirement on pilot basis. The nomenclature and brief specifications of this product are as below. The Technical Sanctioning authorities may make suitable modification in nomenclature of the item as per the exact requirement in the work.

### Nomenclature

Providing and fixing panels of 5mm thick Real Stone Aluminium composite Panel (RACP) cladding/curtain wall cladding in light weight of approved shade made out of 4mm thick Aluminium Composite panel (FR) grade mineral filed thermoplastic inorganic core of grade B1 sandwiched between two thin coil coated aluminium sheets (top face 1 & rear face 2) of alloy grade 3003 and H-16 temper, 1mm thick natural stone layer adhered to ACP with MS polymer technology and 20 microns nano coating at the top of natural stone like column, wall jambs, sills, projected area, celling, decorative cladding on any surface to any profile and shape at horizontally/vertically/stoped/curved/ circular etc. (linear as well as curvilinear) for all heights and levels including.

- e) The coating layer of 20 microns on installed RACP surface shall not have irregularities such as oil caning, waves, buckles etc with a gloss of 30% according to Gardner scale and shall also safe guard the real stone skin against water, stain, dust and pollution.
- f) All fasteners anchors brackets and similar attachments used for the fixing and erection of the panels shall be of aluminium non magnetic stainless steel or hot dip galvanished steel.
- g) In the case of curtain wall cladding the composite cladding panels shall be of straight/bend type framed with an extruded aluminium and natural stone profile.
- h) All fasteners shall be concealed with panel joints and all fixing and joints details shall be designed to provide for the expected thermal expansion, contraction and structural moments of the building.

## **Brief Specifications of the Product**

Real Stone Aluminium Composite Panel (RACP) cladding in light weight, multi layer panel in natural stone of approved shade, made of combination of natural stone and Aluminium Composite Material (ACM) made out of 4mm thick Aluminium Composite Panel fire retardant (FR) grade material filled thermoplastic inorganic core of grade B1 sandwiched Between two thin coil coated aluminium sheets (top i.e. face #1 & rear i.e. face #2) of alloy, grade 3003 and H-16 temper as specified in the nomenclature of the item. The RACPs are used for external cladding surfaces like column, wall, jambs, sills, projected area, ceiling, decorative cladding on any surface to any profile and shape at horizontally/vertically/sloped/ curved/circular etc. (linear as well as curvilinear) and plus 1mm thick natural stone layer adhered with ACP with state of the art MS polymer technology and with 20 macron nano coating of silicone silence mixed with fumes silica at top of Real Stone Aluminium Composite Panel (RACP). The ACP fire retardant core of B1 grade containing 70% of non combustible inorganic compound and 30% of virgin LDPE. The main ingredient of non combustible compound are Aluminium Oxide (AIO) and Magnesium Oxide (MgO), when this ACP are put on fire at self – ignition temperature of 460 degree Celsius, it can be cached on fire after 5 min and when the fire leave the panels, the fire on the wall extinguish after 10 seconds.

The weight of Real Stone Aluminium Composite Panel (RACP) should not be less than 9 Kg/sqm. The RACP shall confirm to ASTM E84-08 or EN13501-1 or DIN4102 resulting in fire resistant properties. The complete system shall be designed to withstand the design wind pressure as per relevant IS code or international code (test pressure shall be 1.5 times of design wind pressure). Necessary pull out test with adhesive or of anchor fastener shall be carried out on the Masonry wall/RCC structure to check the load bearing capacity of the bolt designed under section pressure for designing the sporting and anchoring system.

Performance of the product shall be observed and if found satisfactory the analysis of rate, nomenclature and specifications of the item shall be submitted to this office for further action as mentioned in the DG, CPWD Circular dated 07.11.2019.

#### Conditions:

- 1. This approval for Product has been given on the specific request of the company.
- 2. This approval will not absolve the responsibility of field officers. The field officers are requested to ensure the product brought at site/proposed to be used for work is as per approved/laid-down specifications the same should be recommended to this office for cancellation of approval.
- 3. The approval will be cancelled if material does not confirm to laid-down quality standards and/or the company resorts to unethical practices which are not acceptable to the department.
- 4. The approval will also be cancelled at any time if it is found that the information submitted to this office by the manufacturer company was incorrect.
- 5. This approval shall not make the firm eligible for claiming the right to get the work in the department.
- 6. The department reserves the right to cancel this approval without assigning any reason.

This issues with the approval of Engineer-in-Chief, PWD.

Encl: As above

#### Copy to:-

- 1. All Chief Engineers, PWD, GNCTD, New Delhi.
- 2. All Superintending Engineers, PWD, GNCTD, New Delhi (through e-Mail).
- 3. All Executive Engineers, PWD, GNCTD, New Delhi. (through e-Mail).
- 4. M/s REYNOARCH Real Stone (ALSTONE INDUSTRIES PVT. LTD.), 2E/7, Jhandewalan Extension, New delhi-110055 (through Speed Post).

Recived with Thanks

Arun Kumar

General manager

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Director (Works)

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