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New Era Construction Chemicals

ANALYSIS REPORT FOR REPAIRSAT

SPICE BOARD BUILDING - TUTICORIN

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ANALYSIS:

The Site conditions were studied along with the reports and feed backs received from your persons in the office.

- Dampness has been identified from various places due to the cracks found near beams and brick work joints.

- *The pictures show the dampness in the walls and ceiling areas. The cracks near the beam area are also clearly visible.*

- Dampness is found in the rear because of water seepage from outlet pipes provided from the toilet.
- In lot of places spalling can be seen in the plastering. It might be due to the mix proportion. On checking only traces of cement was found. Another reason might be use of salty sand.

- In many places cracks are visibly seen inside and outside the building. Almost all the inner walls of 4.5" thickness are having cracks.
- Dampness is found in the walls of third floor guest room 2 which is because of the water stagnant in the toilet and the slope is improper. Further cracks can be seen in the tiles also.
- In the front portion the columns are seen to be settling, since we had not taken any test pit, this analysis is based purely on our experience and assumption as we could find cracks near the window on both sides which is diagonally opposite which might be due to the settlement of the columns. Solutions for this problem has not be given as we had to open the side portion and check for the actual problem. For the cracks we had adopted stiching procedure which might solve the problem to a certain extent.

- It is very much essential that the rectifications be carried out using recommended construction chemicals.

DETAILED SPECIFICATION:

(a) <u>WATER PROOFING TREATMENT: FOR SUNKEN PORTIONS:</u>

- Dismantle the existing tiles and plastering to expose the virgin concrete surface.
- Clean the surface to be free of dust, loose particles and atmospheric deposits.
- The concrete surface shall be stagnated with water to identify source of seepage and if required pressure grouting shall be done with neat cement slurry admixed with **TEC^{R} SWELL** with the ratio of 225 gms per bag of cement.
- The concrete surface shall be wetted thoroughly and ensuring that there is no water puddle. Two coats of **TEC^{R} WAVE 2000** – Water proofing membrane coating shall be provided by brush, as per the application specifications.

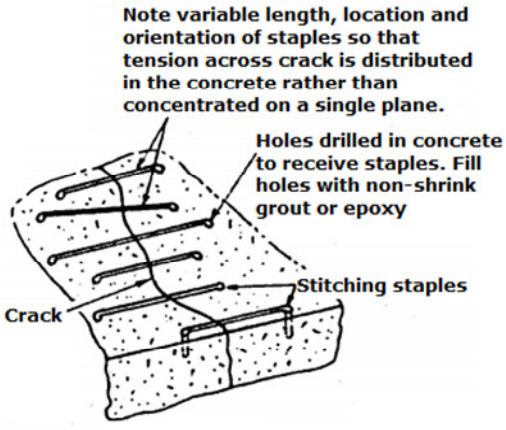
- Over the still tacky and green bonding coat plastering shall be carried out admixed with **TEC^{R} POROSEAL 300**. The plastered surface has to be finished properly with trowel to provide proper slopes.
- Tiles may be laid over the plastered area after proper curing is completed with **TEC^{R} BOND 34** and the joints shall be grouted with **TEC^{R} TILE 21**

(b) SPALLING RECTIFICATIONS FOR WALL PLASTERING:

- Chip the areas where damages and seepages are found in the external and internal walls.
- Clean the surface to be free of dust and loose particles and give a water wash to remove the salt contamination.
- Wet the chipped of surface and providing one bond coat of **TEC^{R} BOND SBR SUPER** in the ratio of 1:1:1 (Cement: TEC^{R} BOND SBR SUPER: WATER)
- While the bond coat is still tacky, Re-plastering in CM 1:4 admixed with **TEC^{R} POROSEAL** at the ratio of 500 gms per bag of cement should be carried out and finished with wooden float.
- The entire external wall may be coated with **TEC^{R} WAVE DP** to prevent dampness from external forces.

(c) CRACK FILLING FOR 9" WALLS:

- Cut a groove along the crack to widen it to absorb the material.
- The surface shall be cleaned with water wash.
- The cracks shall be applied with the bond coat of **TEC^{R} BOND SBR SUPER** in the ratio of 1:1:1 (Cement: TEC^{R} BOND SBR SUPER: WATER)
- Mix **TEC^{R} KRACK FILLER** as per the mix specification and fill it up to the brick level and any excess material may be removed with a squeeze or float.
- 6mm rods can be bend and placed with an interval of 15cms as shown in the picture over the filled area



- Wet the surface and provide one bond coat of **TEC^{R} BOND SBR SUPER** in the ratio of 1:1:1 (Cement: TEC^{R} BOND SBR SUPER: WATER)
- While the bond coat is still tacky, Re-plastering in CM 1:4 admixed with **TEC^{R} POROSEAL** at the ratio of 500 gms per bag of cement should be carried out and finished with wooden float.

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(d) CRACK FILLING IN 4.5" WALLS:

- Cut a groove along the crack to widen it to absorb the material.
- The surface shall be cleaned with water wash.
- The cracks shall be applied with the bond coat of **TEC^R BOND SBR SUPER** in the ratio of 1:1:1 (Cement: TEC^R BOND SBR SUPER: WATER)
- Mix **TEC^R KRACK FILLER** as per the mix specification and fill it thoroughly and any excess material protruding beyond the plastering may be removed with a squeeze or float.

(d) CRACK FILLING FOR BEAM & BW JOINTS and COLUMN & BW JOINTS:

- Cut a groove along the crack to widen it to absorb the material.
- The surface shall be cleaned with water wash.
- The cracks shall be applied with the bond coat of **TEC^R BOND SBR SUPER** in the ratio of 1:1:1 (Cement: TEC^R BOND SBR SUPER: WATER)
- Mix **TEC^R KRACK FILLER** as per the mix specification and fill it thoroughly and any excess material protruding beyond the plastering may be removed with a squeeze or float.

(e) PREVENTING CARBON DEPOSIT INSIDE THE LAB:

- Since its very near to TTPS conveyor belt, the best option is to provide with a single frame aluminium windows and the joints may be packed with **TEC^R POLYSEAL PU** to prevent carbon penetration inside the labs

CONCLUSION:

All technical aspects have been covered in the report to give a broad view of the project. For further clarifications you may feel free to call us.