

TECHNICAL SPECIFICATIONS FOR WATERPROOFING OF TERRACE AREA, SWIMMING POOL OR ANY WATER RETAINING STRUCTURE USING SINGLE COMPONENT, LIQUID APPLIED, POLYURETHANE WATERPROOFING AND SEALING MEMBRANE

CLEANING AND SURFACE PREPARATION:

Clean the RCC surface of all loose particles, dust, cement laitance etc. preferably done using floor polishing machine or any other mechanical tools. Surface preparation is of prime importance as the degree of performance of the coating is directly proportional to the extent of cleaning. Identify the cracks, construction joints, honeycombed areas etc. on the RCC surface. Injection grouting shall be done at construction joints with providing and injection non shrink cementations grout by mixing – 2 pouches and 50 kg of cement and sufficient water for flow ability grouting the same under pressure in pre-drilled holes by grouting pump etc. After grouting is completed after 24 hours, cut the nipples and seal it with Polymer Modified Mortar.

VATA/ANGLE FILLET AT CONSTRUCTION JOINT:

Prepare a vata/angle fillet (50mm x 50mm) at the construction joints using PMM (1:5:15 = Polyalk EP:Cement:Quartz sand)

CRACK FILLING:

Fill all the cracks using Liquid Applied polyurethane membrane. Slightly widen the crack using a cutting device and clean the same using air blower to remove dust particles. Apply primer in the crack and then after 1hr inject Main compound into the crack. After 3-4 hrs check for any absorbency if any fill the crack again till it gets filled.

HYDROSTATIC TEST:

Fill the water in tank till 24 hours for the hydrostatic test of tank. Check that any leakage problem are there. If any leakage is identified then repair it by main compound into the crack.

CHEMICAL WATERPROOFING SYSTEM:

Providing and applying single component liquid applied polyurethane based waterproofing membrane to the entire area at the dose of 1.5 kgs per m². Apply Primer coat with the help of brush and allow it to dry for 2-3 hours. After primer has dried apply TWO coats of membrane a single component moisture cured, polyurethane based elastomeric membrane. Apply First coat at 1 kg per m² rate and allow it to cure for 24-48 hr. Apply second coat

at 0.5 kg per m² rate. To provide key for the protective plaster, sand should be broad casted while the second coat is still tacky. Allow this coat to moisture cure for 2-3 days.

PROTECTIVE PLASTER:

After Application of Final coat of Protect it with protective Plaster (1:4 cement: sand) of average thickness 15-20 mm. While making mortar for plaster mix waterproofing admixture with plasticizer & shrinkage compensation. Allow it to cure as normal. Total area is to be filled with water for minimum 7 days to check for any leakage.

Mode of measurement and payment:
For the surface area the length and breadth shall be measured current to Cm as be made not extra paid for any opening of the pipe etc. complete. Up to 0.1 Sq.mt the rate shall be include the cost of all labour and materials. Required for the operation involved for the satisfactory completion of this item.
The necessary approved format guarantee bond for 3 years shall be given by the contractor for leakages works as per instruction given by engineer in-charge. 5% amount of work done shall be kept in deposit for 3 years for guarantee bond.
Form of Guarantee bond
I/ We -----(contractor) Hereby Guarantee that work will remain in unaffected and will not be in any way damaged by water leakage on any other similar types of defects surface will get good for the period of Ten years after the completion of work of water proof as per the terms & condition of the contract & contractor here by identifies & agrees to save hares the Govt. of Gujarat from any loss or the similar type of the leakage and here by Guarantee to make good any loss or damage suffered by the Govt. of Gujarat further Guarantee to redo the effective work without claiming and any extra cost.
This Guarantee shall be remain force of the period of Ten years for the completion of the work under the contract and it shall remind bonding to the contractor for the period of Ten years.
The deposit at the rate of total 15% of the cost of this executed item from the running of the final bills as taken of guarantee for work shall be recovered and shall be released after the first three years after completion work of 1/3 of deposit and as half 1:3 amount shall be released for the tenth years after date of final balance of guarantee period, if no leakage is found.