

## दिल्ली सरकार कार्यालय प्रमुख अभियंता, लो०नि०वि०, 12वां तल, बहु—मंजिलाभवन, इंद्रप्रस्थसंपदा, नई दिल्लीः 110002 ™23317926, 23724561, 23317520, फैक्स23766924



Toll Free Complaint No. 1800 11 0093 वेंबसाइट: http://pwd.delhigovt.nic.in ई—मेल: pwdhqdelhi@gmail.com/dppwdhqdelhi@gmail.com

No. E-in-C/PWD/Works/NMET/2021/ 7020

dated: 26.08.2021

### **OFFICE MEMORANDUM**

Sub: Approval of New products of Water proofing on trial basis.

The Engineer in Chief, PWD has approved the following two New products of water proofing for incorporating in NIT's of PWD Delhi for a span of 2 years from the date of issue of this OM. The Office Memo No. E-in-C/PWD/Works/NMET/2021/2931 dated 24.08.2021 may be considered as withdrawn as the same has been modified as below.

#### Item No.-1

Providing and fixing Joint Sealing Tape of approved make of Velosit or equivalent (Joint Sealing Tape made up of High end polyethylene with upper and lower surface heat laminated of width 200 mm, weight of Joint Sealing Tape per metre of width 200 mm should be 0.060 kg/m with variation  $\pm$  5% having tensile elongation 300% and water impermeability 5 bars from the positive side as per EN 12390-8) for water proofing on the Joints of Toilets, Rain water outlets, Khurras, pipe recesses/penetrations in kitchens and bathrooms etc.

#### Specification-

<u>Surface preparation</u>- The concrete surface shall be made free from all the depression/undulation, Dust, Dirt, laitance and all the adhesion inhibiting materials. Depression, holes, and any undulation on the entire surface, if any, shall be treated/filled with high strength polymer modified mortar and the surface shall be levelled.

After surface preparation 1st coat of two component High strength acrylic waterproofing system(The two component high strength acrylic waterproofing system should have tensile elongation of 60%, tensile strength of 2MPa, adhesion strength of 2MPa, crack bridging capacity of 2.4mm as per ASTM C-836 and water impermeability of 5 bars on positive and 1.5 bars on negative side as per EN 12390) shall be applied on the joint and immediately Joint sealing tape shall be placed over it and pressed with steel trowel to ensure adhesion and remove any entrapped air. The longitudinal overlap should be minimum 100mm.

#### Measurement :-

The Joint Sealing Tape shall be of width 200mm and shall be measured in Running metre. The rate is inclusive of all the steps mentioned in specification.

Analysis of Rates:- Attached

#### Item No.-2

Providing and applying Two coats of two component acrylic High strength water proofing system of approved make of Velosit or equivalent (The two component high strength acrylic waterproofing system should have tensile elongation of 60%, tensile strength of 2MPa, adhesion strength of 2MPa, crack bridging capacity of 2.4mm as per ASTM C-836 and water impermeability of 5 bars on positive and 1.5 bars on negative side as per EN 12390).

- 2 (a) For Toilet/Wet areas (Two coats @ 2.5 kg/Sqm.
- 2 (b) For Tanks and water retaining structure (Two coats @ 3.5 kg/Sqm)

### Specification-

The first coat shall be applied over the Pre-wetted surface of depressed portion of Bathroom, Kitchen, Toilet etc. after fixing of Joint sealing tape at the Joints.

After drying of the first coat sufficiently, the second coat shall be applied with brush. The total quantity of two coats of two component acrylic product should not be less than 2.50 Kg/sqm for toilets/wet areas and 3.50 Kg/sqm for water retaining structures and Tanks. The two component acrylic High strength product should have a tensile elongation of 60%, tensile strength of 2MPa, adhesion strength of 2 MPa, crack bridging capacity of 2.4 mm as per ASTM C-836 and water impermeability of 5 bars on positive and 1.5 bar on negative side as per EN 12390 - 8 complete After completion of the above said applications, the waterproofed coating should be left for air drying for a minimum period of 48 hours. Precaution should be taken that during this drying period, no activity is allowed.

### Measurement :-

The Rate is inclusive of all the steps mentioned in specification and shall be measured in Square metres for horizontal and vertical surfaces.

## Analysis of Rates:- Attached

Performance of these products should be observed for 2 years and report be submitted to this office. In case of not satisfactory performance the use of these products should be discontinued and reported to this office immediately.

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

Encl:- Analysis of Rates for item No. 1 and 2 (a) and 2 (b) (Total 5 pages)

1. All Chief Engineers, in PWD, GNCTD, New Delhi.

2. All Superintending Engineers in PWD, GNCTD, New Delhi (through e-Mail).

3. All Executive Engineers in PWD, GNCTD, New Delhi. (through e-Mail).

Director (Works)

Director (Wo

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# Analysis of Rate for Item No. 1

		Unit	Qty	Rate (Rs.)	Amount (in
1	The quantity of Joint Sealing Tape of width 200mm	metre	1	350	350.00
2	Repair and preparation of surface, base coat and fixing of tape (Labour and materials)	L-S		35	35.00
	Total	W			385.00
3	Add 1% of water charges on W			-400	3.85
	Total	Х			388.85
4	Add GST on X (multiplying factor 0.1405)				54.63
	Total	Υ			443.48
5	Add 15% CPOH on Y				66.52
	Total				510.00
6	Add Labour Cess @1%				5.10
	Total				515.10
	Cost per metre of width 200 mm				Rs. 515.10

Asst. Director (Works)

Dy. Director (Works)

Director (Works)

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# Analysis of Rate for Item No. 2 (a)

		Unit	Qty	Rate (Rs.)	Amount (in Rs.)
1	Quantity of Two component system for 2 coats 2.5 kg/per sqm Considering wastages @ 5% 2.5 kg + 5% wastage = 2.63 Kg	Kg	2.63	150	393.75
2	Repair and preparation of surface and application of two coats (Labour and materials)	L-S		125	125.00
3	Sundries	LS			15.00
	Total	W			533.75
4	Add 1% of water charges on W				5.34
	Total	Х			539.09
5	Add GST on X (multiplying factor 0.1405)				75.74
	Total	Υ			614.83
6	Add 15% CPOH on Y				92.22
	Total				707.05
7	Add Labour Cess @1%				7.07
	Total				714.12
	Cost in Rs./Sqm				Rs. 714.12

Asst. Director (Works)

Dy. Director (Works)

Director (Works)

# Analysis of Rate for Item No. 2 (b)

		Unit	Qty	Rate (Rs.)	Amount (in
1	Quantity of Two component system for 2 coats 3.5 kg/per sqm Considering wastages @ 5%  3.5 kg + 5% wastage = 3.68 kg.	Kg	3.68	150	552.00
2	Repair and preparation of surface and application of two coats (Labour and materials)	L-S		125	125.00
3	Sundries	LS			15.00
	Total	W			692.00
4	Add 1% of water charges on W				6.92
	Total	Χ			698.92
5	Add GST on X (multiplying factor 0.1405)				98.20
	Total	Υ			797.12
6	Add 15% CPOH on Y				119.57
	Total				916.69
7	Add Labour Cess @1%				9.17
	Total				925.86
	Cost in Rs./Sqm				Rs. 925.86

Asst. Director (Works)

Dy. Director (Works)

Director (Works)