



**MUMBAI METROPOLITAN REGION DEVELOPMENT AUTHORITY**

**PART DESIGN AND CONSTRUCTION OF BALANCE WORKS OF PACKAGE CA-06, ELEVATED VIADUCT AND 05 ELEVATED STATIONS VIZ. MTNL, SG BARVE MARG, KURLA EAST, EEH & CHEMBUR [EXCLUDING ARCHITECTURAL FINISHING & PRE-ENGINEERED STEEL ROOF STRUCTURE OF STATIONS] FROM CHAINAGE 46860.384M TO 52729.312 M OF LINE 2B [D.N. NAGAR TO MANDALA] OF MUMBAI METRO RAIL PROJECT OF MMRDA.**

**CONTRACT NO: MMRDA/MMRP/L2B-C102**

**TENDER DOCUMENTS**

**VOLUME 4**

**DESIGN BASIS REPORTS**

**&**

**TECHNICAL SPECIFICATIONS**

**MUMBAI METROPOLITAN REGION DEVELOPMENT AUTHORITY**

**Metro PIU, 7<sup>th</sup> Floor, New Administrative Building,, Bandra-  
Kurla Complex, Bandra (E), Mumbai –400 051, India**

## ANNEXURE-3

### APPROVED MANUFACTURERS/SUPPLIERS

(for Mumbai Metro Rail)

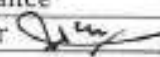


All materials and products shall conform to the relevant standard specification, BIS codes and other relevant codes etc. and shall be of make as approved by Engineer.

The list of approved makes for products and materials is given below. Other equivalent manufacturers may also be considered with prior approval of the Engineer, if found conforming to all standards. Such requests should be made with all documents to the Engineer at least 45 days before the material is required and any order shall be placed only after receiving the written approval of the Engineer.

S.No.	Details of Materials / Products	Manufacturer's Name
1	Cement	ACC, Ultratech, Gujarat, Ambuja, Grasim, JK Lakshmi, JSW,
2	Reinforcement Bars	SAIL Plants, Rashtriya Ispat Nigam Ltd. (Vizag Steel Plant, Andhra Pradesh), Tata Steel (Jharkhand), Ispat Industries (Maharashtra), JSW Steel (Karnataka), JSP and any other integrated steel plant as per Ministry of Steel's definition.
3	Epoxy	FOSROC, SIKA QUALCRETE, BASF, CHRYSO, ARALDITE Ado-Additives
4	Expansion Joints	Prequalified Manufacturers as per RDSO's latest approved list or as approved by MMRDA/DMRC
5	Admixtures	FOSROC, SIKA, BASF, Adoadditives, Fair mate, ATPL, Rheoplast, TP Buildtech, Pinnacle, Polygon, CHRYSO, MBT.
6	Pile Integrity Testing Agency	Geo dynamic, CEG Test House, ATL AVANTECH, Soil Engineering Consultants, <b>Knack Engineering</b>
7	Anchor Fastener	HILTI, Pioneer Nuts and Bolts, M/s Times Engineering, DADU Precision Fasteners, USHA Precision Fasteners pvt ltd.
8	Structural Steel	TATA, SAIL, ESSAR Jindal Steel & Power Ltd., JSW, RINL

## DOCUMENT SUBMISSION REPORT (DSR) - STATUS SHEET

Contract No:	MM3-CBS-UGC-05
Contractor Name & Address:	J Kumar Infra projects Ltd & China Railway No 3 Engineering Group Co. Ltd JV,16A, Andheri Industrial Estate, Veera Desai Road, Andheri West, Mumbai - 400053
Attention:	Mr. Somesh Pandey
Reference of Letter/Transmittal	UGC05-GCC-CON-001635-R01
Reception date of Letter/Transmittal	25-11-2021

Discipline:	Quality Assurance		
Assessor:	Devesh Kumar 		
Discipline Coordinator	Chetas Desai 		
MMRC Concurrence	Yes:	Nil:	v
Prepared by Team Leader	Pramesh Kammaran 		

**SUBJECT** DSR reply on submission for Vendor Approval of M/s Knack Engineering services Pvt Ltd for Material testing Laboratory (UGC 05)

## List of documents submitted:

No.	Document Reference	Revision	Date	*Notification		
				A	B	C
1	UGC05-GCC-DOQ-0001635-R01 (Vendor Approval of M/s Knack Engineering)	1	24-11-2021			√

## Definition of Notification:

- A. Objection. A complete resubmission is required
- B. No Objection with comments
- C. Notice of No Objection

MUMBAI METRO LINE 3		
J. KUMAR-CP13 JV-Pkg_05		
RECEIVED		
Signature	Date	Time
	29/11/21	17:00

Area of Deficiency

**To,**  
**Knack Engineering Services Pvt. Ltd.**  
 Shop No.203, Building B1  
 Wadala Truck terminal,  
 MMRDA compound  
 Antop hill, Mumbai – 400037.  
 Phone: 022 - 24010148

**Sub:** Conducting Physical and Chemical Test on the admixtures products recommended by M/s Asian paints ltd. and M/s Associated Chemicals.

**Ref:** 1) Proposal from M/s Asian paints ltd, dated 05/12/2020.  
 2) Proposal from M/s Associated Chemicals, dated 22/01/2021.

Sir,

This office is in receipt of the above proposals from M/s Asian paints ltd and M/s Associated Chemicals regarding use of their Admixture in the construction of Mumbai Metro Rail Projects. You are requested to convey this office about physical as well as chemical suitability of use of this product by conducting physical and chemical test on it under the witness and supervision of the General consultant of Metro Line 5 as per the relevant IS Code. The required sample will be supplied to you by M/s Asian paints ltd and M/s Associated Chemicals. It is requested to issue separate test reports of both parties of each specimen as mentioned below to this office at the earliest.

Product type	Sr. No.	M/s Asian Paints ltd.	M/s Associated Chemicals
Admixture	1	AP Smartcare Quartz Crystalline Admix	Ultraflow LW PCE
	2	AP Smartcare Technoplast S 300	Ultraflow MID PCE
	3	AP Smartcare Maximoplast PC 100	Ultraflow HI PCE
	4	AP Smartcare Maximoplast PC 200	Crystalproof - PDR
	5	AP Smartcare Maximoplast PC 300	Crystalcoat - 300
	6	AP Smartcare Maximoplast PX 100	Finemix - FRX
	7	AP Smartcare Maximoplast PX 200	Finemix FRX plus
	8	AP Smartcare Maximoplast PX 300	Fincrete

**मुंबई महानगर प्रदेश विकास प्राधिकरण**

Please note applicable charges will be borne by M/s Asian paints ltd and M/s Associated Chemicals for their respective products.

Thanking you,

Yours Truly,

  
17/02/2021  
(Atul Patil)

**Executive Engineer  
Metro-PIU**

Copy To:

- 1) **M/s Asian paints ltd, Asian Paint house, 6A, Shantinagar, Santacruz (E), Mumbai – 400055 (Contact no. 022-62181000 & 022-6218111) - for necessary follow up.**
- 2) **M/s Associated Chemicals, A/103, Gurudev Apts, Opp Telephone Exchange, Chembur Naka, R.C Marg, Mumbai – 400071 (Contact no. 65752002/2378 & 25277937/43) - for necessary follow up.**
- 3) **GC, Metro Line 5 - It is instructed to witness and supervise the testing of the products as mentioned above.**

**Test Request Review**  
Test Requested are under Labs scope : YES / NO  
Availability of Labs Resources as required : YES / NO  
Appropriate Test Methods Declared : YES / NO  
Statement of conformity required : YES / NO  
If any-Significant deviations: \_\_\_\_\_  
Checked by Exc. CSC/TM \_\_\_\_\_ Dt. \_\_\_\_\_

No. MPIU/ML-4/Knack/2020/189

Date: - 20/02/2020

To,  
**M/s. Knack Engineering Services Pvt. Ltd**  
Ground Floor, B1 Building,  
Opp of Police Station Wadala TT, Wadala  
Mumbai – 400 037.

**Sub: -** Water testing for curing in the construction of Mumbai Metro Rail Projects.

With reference to the above subject, tests are to be carried out on water which is used for curing procedure in the construction of Mumbai Metro Rail Projects. Water sample used for concreting is enclosed herewith for your reference. You are requested to carry out the following tests as per IS 456/2018 for non-portable water.

- 1) Organic and inorganic matter.
- 2) Chloride content
- 3) Sulphate content
- 4) Ph Value.
- 5) Alkali Carbonates and bicarbonates.
- 6) Total Dissolved Solids (TDS)
- 7) Suspended matter.

It is requested to issue test reports to this office at the earliest. The payment of these tests will be paid by M/s. Rinfra-Astaldi JV.

Yours truly,

  
(Shiyani G. Patil)  
Executive Engineer  
Metro-PIU

**Copy to: -** M/s.Rinfra-Astaldi (JV) Reliance Centre,EPC Division, 2<sup>nd</sup> Floor,South Wing,Santa Cruz(East),Mumbai-400 055....for information and necessary action.

**Mumbai Metropolitan Region Development Authority**