

PAINTING SCOPE OF WORK FOR SG CMV PROJECT (REF. DWG. 94628101)
PAINTING SPECIFICATION

1) ACID CLEANING :- CLEAN THE EXTERIOR PORTION OF THE SHELL WITH ACETONE/MTO THINNER TO REMOVE OIL, GREASE, DUST ETC.

2) GRIT BLASTING: - GRIT BLAST ENTIRE EXTERIOR OF UNDER FRAME AND SHELL (SIDE WALL, CAB & BACK WALL AND ROOF) TO FACILITATE PAINTING. (RDSO SPECN. M&C/PCN/100/2009(Latest). APPROX SURFACE AREA WORKS OUT TO 160 SQ.MTRS.

3) EPOXY PRIMER APPLICATION: - APPLY ONE COAT OF EPOXY BASED ZINC PHOSPHATE (TWO PACK SYSTEM) PRIMER PAINT ON EXTERIOR BODY OF THE SHELL AFTER GRIT BLASTING. (RDSO SPECN. M&C/PCN/100/2009(Latest)).

4) UNDER FRAME PAINTING :- APPLY ONE COAT OF EPOXY BASED ZINC PHOSPHATE (TWO PACK SYSTEM) PRIMER PAINT ON THE UNDER FRAME (BEFORE TROUGH FLOOR INSTALLATION, REFER: 946-41001) .AFTER PAINTING EPOXY BASED ZINC PHOSPHATE PRIMER (TWO PACKS), UNDERFRAME TO BE PAINTED WITH 2 COATS OF HIGH PERFORMANCE ANTI CORROSION EPOXY COATING (TWO PACKS) AS PER RDSO SPECN M&C/PCN/123/2006. TOTAL DFT NOT LESS THAN 350 MICRONS (REF DRG NO. 94628101).

5) PICKLING & PASSIVATION: - SPRAY AND RINSE THE BLACKENED SURFACE OF STAINLESS STEEL WELD AREA WITH WATER AND WIPE OUT THE WATER ALONG WITH DUST, DIRT WITH PRESSURIZED AIR. APPLY THE CLEANING GEL BY USING BRUSH ON FLAME HEATED AND WELDED AREA ON S.S. MATERIAL AFTER LEAVING GAP OF ONE HOUR, RUB THE ACID CLEANED PORTION, USING SCOTCH BRITE BRUSH TO REMOVE THE BLACKENED SURFACES THEN RINSE THE SOLUTION APPLIED AREAS WITH WATER AND DRY WITH BLOW HOT AIR (NO BLACK SPOTS VISIBLE ON S.S. AREA) OTHER THAN SS AREA, WELD SLAGS AND BLACK MARKS TO BE REMOVED FOR DETAILS REF. 94629301.

6) COACH INSIDE PRIMER APPLICATION: - CLEAN INSIDE THE COACH SO THAT AREA IS FREE FROM DUST. MASK ALL STAINLESS STEEL COMPONENTS AND APPLY TWO COATS OF ROZ PRIMER TO SIDEWALL, ROOF, BACKWALL, CAB OF CABIN STRUCTURE AND ALL PARTITIONS.

7) BITUMINIOUS APPLICATION :- COVER OR MASK THE EXPOSED PORTIONS INSIDE, LIKE , STAINLESS STEEL COMPONENTS, PARTITION POSTS AND FLOOR TO AVOID BITUMINIOUS SPRAY THEN SPRAY FIRST COAT OF BITUMINIOUS EMULSION WITHOUT MICA TO INSIDE SHELL AND ALLOW TO DRY. APPLY 2ND COAT OF BITUMINIOUS EMULSION WITH OUT MICA CONTENT AND ALLOW TO DRY. APPLY III RD COAT BITUMINIOUS EMULSION PAINT WITH MICA CONTENT IN SIDE OF SIDEWALL, BACKWALL, CAB OF CABIN STRUCTURE AND ALL PARTITIONS.

8) CLEANING OF BITUMINIOUS EMULSION: - CLEAN BITUMINIOUS EMULSION SPRAYED ON EXPOSED PORTION INSIDE SHELL INCLUDING PARTITIONS WITH WATER.

9) BITUMINIOUS EMULSION & FIBRE GLASS TISSUE APPLICATION FOR UNDER FRAME:- ONE COAT OF BITUMINIOUS EMULSION SHOULD BE APPLIED IN AREAS SHOWN IN DRG & ALLOW TO DRY FOR 8HRS. 2ND COAT OF BITUMINIOUS EMULSION SHOULD BE APPLIED . APPLY THE FIBRE GLASS TISSUE (INSIDE SURFACE OF SOLE BAR AS SHOWN IN DRG) & WHEN 2ND COAT IS STILL IN WET CONDITION.IMMEDIATELY AFTER APPLICATION OF FIBRE GLASS TISSUE , BITUMINIOUS EMULSION TO BE APPLIED AS FINAL COAT. THE TOTAL DFT OF BITUMINIOUS EMULSION SHOULD BE 160 MICRONS MIN. EXCLUDING THE THICKNESS OF RED OXIDE PRIMER (REFER DRG NO. 94629301).

10) PUTTY MIXING - KNIFEING PUTTY WILL BE MIXED WITH HARDNER OR CATALYST THE MATERIAL SHALL BE OF SUCH A COMPOSITION AS TO SATISFY THE REQUIREMENT OF THIS STANDARD. NOTE: THE MIXING RATIO SHALL BE ACCORDING TO THE RECOMMENDATION OF THE SUPPLIER.

11) PUTTY APPLICATION :- APPLY 1ST COAT OF UNSATURATED POLYESTER PUTTY TO OUT SIDE OF THE SHELL AS PER RDSO SPECIFICATION BY KNIFE WITH DFT OF REQUIRED MICRONS (250-300) SURFACE DRY TIME - 2 HRS., HARD DRY MAX - 8 HRS.

12) SECOND COAT PUTTY: - APPLY SECOND COAT OF UNSTURATED POLYESTER PUTTY TO OUT SIDE OF THE SHELL AS PER RDSO SPECIFICATION BY KNIFE TO DFT OF 250 TO 300 MICRONS DRYING TIME AS ABOVE MENTIONED.

13) PUTTY CUTTING :- WET RUB DOWN PUTTY WITH SILICON CARBIDE -220 EMERY PAPER AND APPLY PUTTY WHERE EVER REQUIRED (ON WELDED JOINTS AND DENTS) AND WET RUB DOWN OF POLYSTER PUTTY AND CLEAN WITH CLOTH.

14) APPLICATION OF PU SURFACER: - APPLY P.U SURFACER TO RDSO SPECN WITH AIR LESS SPRAY WITH DFT OF 60 MICRONS AND ALLOW TO DRY. WET RUB DOWN OF SURFACER WITH SILICON CARBIDE 220 EMERY PAPER AND CLEAN THE SURFACE WITH SOFT CLOTH INCLUDING AND SPRAY ONE FINISH COAT PAINT AS PER THE COLOUR SCHEME AS PER DWG. 946-28101 (LATEST REV).

NOTE:

- 1 BEML will provide grit blasting facility i.e ., hose, Gun, Pot, GH80 steel grit and complete accessories.
- 2.vendors should have carried out similar activities in previous 3-5 years.
- 3.Vendors shall produce the satisfactory completion certificates for the similar works executed by the firm.
- 4 The job to be carried out in accordance with shop production engineers.
- 5 Vendor should have enough skilled work forces to complete the work within stipulated time.
- 6 In the event of any future design change/any re-work/any paint issues/any snags in the equipment, the same should be attended by vendor without any additional cost.
- 7.Workmen must use all PPE safety wears under the guidance of shop Production engineer while performing above operations, the vendor to adhere to BEML IS norms. The safety equipments are in vendor account.
8. Vendor should take care of effective utilization of all raw material /paint materials and resources while executing the work.
9. In case of any damage/misuse of equipment vendor have to bear the cost.
10. All the commercial terms are as per DOP & RD-38 for service activities.

Delivery: The works need to be carried out during Jan-March 2021.

TERMS AND CONDITIONS:

1. Price to be firm during Pendency of the contract.
2. Workman ship of the sub contractor shall be of good quality as CMV SHELLS are subjected to inspection by external inspecting agency such as RITES/BEML Quality department.
3. Sub contractor shall ensure proper monitoring of the activities and recording of parameter as per the drawing requirements.
4. Sub contractor has to closely liaise with BEML quality engineering department during various tests and get their clearance at the respective stages. Any Snags raised by BEML quality have to be attended on priority at no extra cost.
5. Adequate care has to be taken by sub contractor while carrying out work as detailed in the scope of work and should there be any damage to the parts, same will have to be reworked / replaced by the sub- contractor free of cost.
6. Sub contractor shall ensure good housekeeping in the working area and take adequate safety precautions to avoid accidents. Personnel protective equipment like safety helmet, safety shoes, gloves, nose mask, ear plug, splash goggle and body aprons are mandatory during workman on job.
7. Sub contractor shall deploy a responsible person at BEML, Rail coach unit II during the execution of the work with whom BEML personal can interact to monitor the progress of the work.
8. Sub contractor shall ensure that his employee will be covered under ESI, PF & Insurance. The sub contractor is responsible for the safety of his employee and the work to be executed with all safety measures. If any major or minor accident occurs during execution of work, vendor is liable for it and BEML will not take any responsibility against such eventualities
9. The courts of the Karnataka state only shall have jurisdiction to deal with and decide any legal matter or dispute whatsoever arising out of this contract.
10. At the time of inspection, rework if any to be attended immediately for clearing the coach. Work to be carried on need basis & also work to be carried in second shift & holidays.
11. LD and risk purchase clause applicable as per BEML standard terms.
12. Work to be carried out inside BEML, Rail coach unit II, KGF / Bangalore complex(If required on need basis).
13. BEML reserves the right to increase or decrease the ordered quantity based on the production plan.
14. TDS applicable on GST as per GST rule.