

कदम कदम मिलाना है ग्राहक सफल बनाना है

Marching Towards Business Excellence



ENQUIRY

TWO PART BID

BP_200101

E-TENDER

भारत हेवी इलेक्ट्रिकल्स लिमिटेड, पिपलानी, भोपाल- ४६२०२२ (भारत)

सामग्री प्रबंधन विभाग

BHARAT HEAVY ELECTRICALS LIMITED, PIPLANI, BHOPAL-462022 (INDIA)

MATERIALS MANAGEMENT DIVISION

TIN NO- 23573000001

ECC NO- AAACB4146PXM009

MPCT NO- HEL/05/01/0001/S15/11/79

PHONE NO : 91-755-2500100

FAX : 91-755-2500023

www.bhel.com

ENQUIRY NO

E5163144

ENQUIRY DATE

16/09/26

ENQUIRY DUE DATE

26/09/26

SUPP NAME AND ADDRESS	SUPP CODE	REV CD	REV NO	REV DATE	NO OF CATY2	NO OF CATY3	ENQ NO OF ITEMS	INDENT NO
	0	1	0	NA	1	2	1	820562420
	GUARANTEE CERTIFICATE		Y	SUPPLY CONDITION IDENTIFICATION MUST				
	TEST CERTIFICATE		Y					
	INSTRUCTION BOOKLET		N	TECHNICAL CONDITION AS PER PI				
	SAMPLE		N					
	GATE PASS		Y	INSPECTION CONDITION AT BHEL BHOPAL				

NOTE: QUOTE PRICE BOTH IN FIGURES & WORDS.IN CASE OF MISMATCH PRICE IN WORDS WILL BE VALID,QUOTATIONS NOT BEARING ENQUIRY NO AND DUE DATE LIABLE TO BE REJECTED.

SL NO	MATERIAL CODE	DESC	UNIT	ITEM QTY	QTY VR%	LOT NO	LOT QTY	DEST	DELIVERY DATE
1	AA5610042100	POLYURETHANE FINISHING PAINT AS PER BHEL SPEC AA56142 REV.06. TRAFFIC GREEN (ISC-267)	LT	1200.000	30	1	600.000	205	11/11/26
						2	600.000	205	11/12/26

REMARK AS PER NIC E TENDER

DRAWING	N	PURCH SPEC	Y	CATALOUGE	N	Quality Surveillance Pl:	N	TWO PART BID	Y
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NOTE:BHEL,BHOPAL'S Standard Terms & Conditions BP200102C/BP205316 for imports and BP200102C/ BP205316 for indigenous procurements form a part of this Enquiry. Bidders may obtain from us copies of these terms and conditions if not already available.

Note: During Bid Evaluation, No loading of price with regard to preferential payment of within 45 days will be made on vendore falling under MSMED ACT - OCT 06

Please submit your lowest quotation in sealed envelop essentially superscribed with ENQUIRY NO, DUE DATE AND PARTY'S NAME so as to reach at TENDER ROOM, GROUND FLOOR, ADM BUILDING, BHEL, PIPLANI BHOPAL-462022 by 11.00 am of due date.

1.This is only a request for Quotation & not an order.

2.Small Scale industries should indicate SSI Regn. No. in Quotation/invoice.

3.In case you are not making an offer against this Enquiry, we request you to post a regret letter.

4.Indian vendors to please indicate GSTIN on their quotation.

SPECIAL REMARK: Bid to be submitted through e-procurement. Refer eproc link on BHEL Bhopal B2B site.

Documents Enclosed

1.Drawing. 3.Purchase specification.

2.Catalogue. 4.Quality Surveillance Plan.

NAME : SHRI MANENDRA SINGH

DESG : MANAGER

0755-2505880

manendra1@bhel.in

SIGN & SEAL

ENQUIRY



MATERIAL MANAGEMENT - TRACTION MACHINES

HEAVY ELECTRICAL PLANT, BHOPAL

BHARAT HEAVY ELECTRICALS LIMITED

BHEL ENQUIRY NO. E5163144

NIT TERMS & CONDITIONS:

SL. NO.	DESCRIPTION	DETAILS
1.	RATE CONTRACT TERMS	We intend to enter into a Rate Contract (RC) for ordering up to 12 (Twelve) months from RC freeze date, i.e. RC is to be kept valid for ordering up to 12 months from RC freeze date. Purchase Ordering shall be done as per BHEL requirement against the finalised rate contract & within its validity. Dispatches to be made against our purchase order (computerized) only, which will be issued against this Rate Contract.
2.	ITEM DESCRIPTION	POLYURETHANE FINISHING PAINT AS PER BHEL SPEC AA56142 REV.06. TRAFFIC GREEN (ISC-267)
3.	TECHNICAL CONDITION	As per attached T-PQR and SPEC.
4.	QUANTITY	1200 ± 30% Ltrs
5.	QUANTITY VARIATION/ Option Clause	±30%
6.	SPLITTING OF ORDER	Not Applicable.
7.	DELIVERY SCHEDULE REQUIREMENT	For the lot of 600 Ltrs Scheduled delivery date shall be within 60 days from the PO date & thereafter for each subsequent lot of 600 Ltrs, scheduled delivery date shall be within 30 days from the scheduled delivery date of the previous lot. Early delivery is acceptable.
8.	DELIVERY TERMS	FOR Destination. DESTINATION FOR SUPPLY OF ITEM SHALL BE BHEL BHOPAL.
9.	DELIVERY INSTRUCTION	IDENTIFICATION MUST
10.	QAP	Not Applicable
11.	INSPECTION CONDITION	AT BHEL BHOPAL
12.	SAMPLE	As specified in the Spec
13.	TEST CERTIFICATE	All Material TC to be supplied along with material as per Spec.
14.	GUARANTEE / WARRANTY	As per BHEL GTC of ENQUIRY (BP200102C, Cl. No. 18)
15.	GUARANTEE/ WARRANTY CERTIFICATE	GC to be supplied along with the material and GC should incorporate /Spec. as mentioned in item description.
16.	PAYMENT TERMS	100% payment in 90 days of receipt (45 days for Micro & Small and 60 days for Medium enterprises as registered in Udyam Certificate as per relevant MSME act in force) and subject to acceptance of material and relevant documents at BHEL.



MATERIAL MANAGEMENT - TRACTION MACHINES

HEAVY ELECTRICAL PLANT, BHOPAL

BHARAT HEAVY ELECTRICALS LIMITED

BHEL ENQUIRY NO. E5163144

		Any deviation from the above payment terms, if accepted (by BHEL), shall be loaded @ "Repo Rate + 4%" for the purpose of bid evaluation. Other terms as per attached BHEL GTC of ENQUIRY (BP200102C, Cl. No. 16).
17.	TECHNICAL PQR (T-PQR)	Technical Pre-Qualification Requirements (T-PQR) for procurement of the items is attached with the NIT. Compliance of all the points in T-PQR is mandatory. In absence of compliance of above and non-submission of documents required against the T-PQR, the Vendor's offer is liable to be rejected. Duly filled T-PQR with desired documents shall be submitted by the Vendor along with the offer. <i>Information/ compliance/ documents submitted by vendor shall be authentic in all aspects. In case any deviation/ false information/ forged documents are observed / revealed later on, BHEL is free to initiate appropriate punitive proceeding against the Vendor as per Prevalent Processes and Guidelines of Company.</i>
18.	FINANCIAL PQR (F-PQR)	Not Applicable.
19.	BID PARTS	Offer shall be submitted by the bidders in Two Parts, i.e. Part-I Technical cum Commercial bid & Part-II Price bid.
20.	PENALTY / LD	As per attached BHEL GTC of ENQUIRY (BP200102C, Cl. No. 9) i.e. 0.5% of the undelivered portion per week of delay or part thereof, subject to a maximum of 10% of the undelivered order value owing to delayed delivery. Any loading on penalty clause shall be to the extent to which it is not agreed to by the bidder (at offered value).
21.	PRICE BASIS	Firm Price basis
22.	PRICING TERMS	As per attached BHEL GTC of ENQUIRY (BP200102C, Cl. No. 12)
23.	PRICE VALIDITY	Offer shall be valid for a period of 90 days from the date of Techno- commercial (Part-I) bid opening date.
24.	TAXES & DUTIES	As per attached BHEL GTC of ENQUIRY (BP200102C, Cl. No. 14)
25.	EVALUATION CRITERIA	Overall L1 basis.
26.	EVALUATION IN CASE OF MORE THAN ONE L-1 BIDDER	In the course of evaluation, if more than one bidder happens to occupy L-1 status, effective L-1 will be decided by soliciting discounts from the respective L-1 bidders. In case more than one bidder happens to occupy the L-1 status even after soliciting discounts, the L-1 bidder shall be decided by a toss/draw of lots, in the presence of the respective L-1 bidder(s) or their representative(s). Ranking will be done accordingly. Decision of BHEL in such situations shall be final and binding.
27.	BID SECURITY/ Earnest Money Deposit (EMD)	Not Applicable



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HEAVY ELECTRICAL PLANT, BHOPAL

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28.	PERFORMANCE SECURITY (PBG)	Not Applicable.
29.	REVERSE AUCTION	Not Applicable
30.	MSE PREFERENCE	Applicable as per attached BHEL GTC of ENQUIRY (BP200102C, Cl. No. 29). Item is divisible on package basis.
31.	PUBLIC PROCUREMENT (PREFERENCE TO MAKE IN INDIA), ORDER 2017 (As per BHEL GTC BP200102C, Cl. No. 33)	Not Applicable.
32.	INTEGRITY PACT (IP)	Not Applicable.
33.	RESTRICTION UNDER RULE 144 (xi) GFR	As per attached BHEL GTC of ENQUIRY (BP200102C, Cl. No. 34)
34.	CONFLICT OF INTEREST AMONG BIDDERS/ AGENTS AND THEIR DECLARATION	A bidder shall not have conflict of interest with other bidders. Such conflict of interest can lead to anti-competitive practices to the detriment of Procuring Entity's interests. Bidders having a conflict of interest shall not be eligible to participate in the tender process. Treatment of cases regarding conflict of interest: - The bidder notes that a conflict of interest would said to have occurred in the tender process and execution of the resultant contract, in case of any of the following situations: i) If its personnel have a close personal, financial, or business relationship with any personnel of BHEL who are directly or indirectly related to the procurement or execution process of the contract, which can affect the decision of BHEL directly or indirectly; ii) The bidder (or his allied firm) provided services for the need assessment/ procurement planning of the Tender process in which it is participating; iii) Procurement of goods directly from the manufacturers /suppliers shall be preferred. However, if the OEM/ Principal insists on engaging the services of an agent, such agent shall not be allowed to represent more than one manufacturer/ supplier in the same tender. Moreover, either the agent could bid on behalf of the manufacturer/ supplier or the manufacturer/ supplier could bid directly but not both. In case bids are received from both the manufacturer/ supplier and the agent, bid received from the agent shall be ignored. However, this shall not debar more than one Authorised distributor (with/ or without the OEM) from quoting equipment manufactured by an Original Equipment Manufacturer (OEM) in procurements under a Proprietary Article Certificate.



MATERIAL MANAGEMENT - TRACTION MACHINES

HEAVY ELECTRICAL PLANT, BHOPAL

BHARAT HEAVY ELECTRICALS LIMITED

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		iv) A bidder participates in more than one bid in this tender process. Participation in any capacity by a Bidder (including the participation of a Bidder as a partner/ JV member or sub-contractor in another bid or vice-versa) in more than one bid shall result in the disqualification of all bids in which he is a party. However, this does not limit the participation of an entity as a sub-contractor in more than one bid if he is not bidding independently in his own name or as a member of a JV. The Bidder declares that they have read and understood the above aspects, and the bidder confirms that such conflict of interest does not exist and undertakes that they will not enter into any illegal or undisclosed agreement or understanding, whether formal or informal with other Bidder(s), in this regard. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process. In case, the Bidder is found having indulged in above activities, the same will be considered as a violation of the tender conditions, and suitable action shall be taken by BHEL as per extant policies/ guidelines.
35.	ANNEXURE-IX	The Bidder/Supplier/Contractor will, when presenting his bid, declare whether other Family Firms or Sister Concern Affiliates/Subsidiary firms are participating in the same tender, so as to eliminate the possibility of cartel formation. Format for declaration is available in the NIT documents for this enquiry (Annexure-IX). Same is to be submitted with the offer.
36.	SPECIAL CONDITIONS	Bidders who fall under MSE (Micro & Small Enterprises only) and fail to upload 'UDYAM Registration Certificate (URC)' shall automatically be considered as Non-MSE supplier for this tender. Further, it is to be noted that MSE benefits are not being extended to Agent/ Dealer/ Trader/ Distributor (i.e. Other than manufacturer). Supplier has to also provide supporting document(s) such as Agreement Between OEM & Bidder(s) etc. Identification must. Soon after rejection of material, it is to be ensured by supplier that material should be taken back maximum within two weeks after communication for rectification/ replacement & supply back the rectified/ fresh material to BHEL Bhopal within 30 days from rejection. In the event of non-lifting of rejected material by supplier, BHEL will not be responsible for loss of such items to the supplier in any case. Offers of suppliers who are in 'HOLD/BANNED' status in BHEL Bhopal PMD shall not be considered. Unregistered vendors to submit documents required for registration to BHEL Portal Online (https://bhel.com/supplier-registration).
37.	OTHER TERMS & CONDITIONS	Other Terms & Conditions as per attached BHEL GTC of ENQUIRY (BP200102C). Any deviation of NIT, BHEL GTC of ENQUIRY (BP200102C) and BHEL PO Terms, where vendor response is not affirmative to be clearly indicated, else BHEL will consider that all above Terms & Conditions are acceptable to vendors.
38.	GEM REGISTRATION	As you are kindly aware that Government e-Marketplace (GeM) is a one stop portal to facilitate Online Procurement of Goods & Services required by various Government Departments/ Organizations/ PSUs.



MATERIAL MANAGEMENT - TRACTION MACHINES

HEAVY ELECTRICAL PLANT, BHOPAL

BHARAT HEAVY ELECTRICALS LIMITED

BHEL ENQUIRY NO. E5163144

		BHEL being a PSU, would like that its suppliers/ contractors also have visibility on this portal so that GeM can be used for procurement by BHEL. Hence, you are requested to get yourselves registered on GeM.
39.	TENDER FEE	Not applicable
40.	BID SUBMISSION WITHIN DUE DATE & TIME	No request for extension of tender due date will be entertained at the time of tender opening and after due date under any circumstances. Hence, all bidders are requested to submit their bid well within due date and time only. <i>BHEL reserves the right for extension of tender based on the situation without assigning any reason whatsoever it may be.</i>
41.	DOCUMENTS TO BE FURNISHED ALONG WITH YOUR QUOTATION	Signed and Sealed copy of: - NIT - BHEL GTC of ENQUIRY (BP200102C) - BHEL ENQ & PO Terms Duly Filled, Signed and Sealed copy of: - Techno-Commercial Annexure - Compliance of T-PQR with applicable documents - Annexure-IX in Company Letterhead - Annexure-A - OEM & MSE Declaration Others: UDYAM Registration Certificate (<i>as applicable for MSME bidders only</i>)
42.	INVOICING THROUGH SUVIDHA PORTAL	For supply orders placed on Indian Suppliers, irrespective of the value of the invoice amount, the bidder / vendor should necessarily upload the despatch & invoice details on BHEL SUVIDHA portal at https://suvidha.bhel.in/suvidha/ , prior to despatch. All documents as per PO checklist, along with additional documents (if any), must be uploaded on the portal. It is mandatory that tax invoices with a net amount (including taxes) exceeding Rs five lakhs uploaded on the portal are digitally signed using a Class 3 Digital Signature Certificate (DSC) issued by a licensed Certifying Authority. Submission of invoice document in hard copy is allowed for invoices with a net amount (including taxes) equal to and upto Rs five lakhs, in case they were not digitally signed and uploaded on the portal. The material will not be accepted inside BHEL in absence of the above.

IT IS HEREBY MENTIONED THAT THIS IS E-TENDER SO OFFER SUBMITTED THROUGH E-PROCUREMENT PORTAL (www.eprocurebhel.co.in) SHALL ONLY BE CONSIDERED.

Techno-Commercial Annexure

(To be filled by supplier inline with NIT requirement and submit with offer)

Tender No.		E5163144		
Description :		Description: RATE CONTRACT FOR POLYURETHANE FINISHING PAINT AS PER BHEL SPEC AA56142 REV.06. TRAFFIC GREEN (ISC-267) Qty: 1200 ± 30% Ltrs Delivery required as per NIT.		
Sr. No.	ELEMENTS	Standards	To be offered/confirmed by supplier	Remarks, if any
1	Quotation reference no. & date	As per supplier		
2	HSN / SAC code	As per supplier		
3	Quotation currency	In INR		
4	Contact person	As per supplier		
5	Phone / Mobile	As per supplier		
6	E-Mail	As per supplier		
7	Order to be placed on, Supplier Name Supplier code, If registered at BHEL Bhopal PAN No., if not registered in BHEL.	As per supplier		
8	Address	As per supplier		
9	Brand name, if any.	As per supplier		
10	Supply from	As per supplier		
11	Are you manufacturer of quoted item (s).	Yes / No		
12	Are you registered under MSMED ACT 2006 as small or micro. NOTE: - Firms registered under medium scale shall not be considered eligible for MSE benefits.	Yes / No (If select Yes, please enclosed valid UDYAM certificate)		
13	CGST RATE (IN %)	As per supplier		
14	SGST RATE (IN %)	As per supplier		
15	IGST RATE (IN %)	As per supplier		
16	UGST RATE (IN %)	As per supplier		
17	Please specify delivery in weeks/ days (Specify item wise, lot wise as per NIT)	As per NIT/ Accepted with deviation (If select Accepted with deviation, please mention the deviation)		
18	Terms of delivery ("FOR DESTINATION ") as per NIT .	Accepted/ Accepted with deviation (If select Accepted with deviation, please mention the deviation)		
19	Terms of Payment as per NIT.	Accepted as per NIT/ Accepted with deviation (If select Accepted with deviation, please mention the deviation)		
20	Acceptance to Performance Security as per NIT.	Yes / No	Not Applicable	
21	Acceptance to "REVERSE AUCTION" as per NIT.	Yes / No	Not Applicable	
22	Declaration of conflict of interest by bidder as per NIT.	Yes / No		
23	Rate quoted on "Firm" price basis	Yes / No		
24	Quoted for all the items and full quantity of tender enquiry	Yes / No. (If "No" please mention item number with Qty of regreted items)		
25	Technical specifications	Accepted as per NIT / Accepted with deviation (If select Accepted with deviation, please mention the deviation)		

Techno-Commercial Annexure

(To be filled by supplier inline with NIT requirement and submit with offer)

Tender No.		E5163144		
Description :		Description: RATE CONTRACT FOR POLYURETHANE FINISHING PAINT AS PER BHEL SPEC AA56142 REV.06. TRAFFIC GREEN (ISC-267) Qty: 1200 ± 30% Ltrs Delivery required as per NIT.		
Sr. No.	ELEMENTS	Standards	To be offered/confirmed by supplier	Remarks, if any
26	Inspection	As per NIT/ Accepted with deviation (If select Accepted with deviation, please mention the deviation)		
27	Test certificate & Gurantee certificate as per NIT and specification will be submitted along with each consignment	Yes (In case of "No" your offer may be rejected).		
28	SELF CERTIFICATION OF MINIMUM LOCAL CONTENT, IF MORE THAN 50% VALUE ADDITION IS IN INDIA. (Note- In case of tenders worth more than Rs. 10 crores, Suppliers shall necessarily submit certificate from statutory auditor or cost auditor or cost accountant or CA) Please also specify the amount of local content in India. EXAMPLE :if 100% INDIGENOUS (MADE IN INDIA) MARK "Y"/100%	As per supplier	Not Applicable	
29	Details of location of value addition / manufacturing	As per supplier		
30	Submission of MII_Certificate with duly sealed & signed (Under Public Procurement Policy)	Yes / No	Not Applicable	
31	Other Charges (If any)	Applicable / Not Applicable. (If applicable please mention percentage (%) / Value (along with type of charges).		
32	Penalty for delayed performance as per BP200102C & NIT	Yes / No (In case of "No", your offer will be loaded suitably)		
33	Confirmation that documents pertaining to PQR has been submitted.	Yes / No		
34	Submission of Declaration format with duly sealed & signed (Annexure IX, refer attached) regarding whether other family firms or sister concern affiliates / subsidiary firms are participating in the same tender.	(Yes / No) If No please specify the reason.		
35	Submission of Declaration format with duly sealed & signed (Annexure-A - OEM & MSE Declaration)	Yes / No		
36	Acceptance to General terms and conditions of enquiry BP200102C.	Yes (In case of "No" your offer may be rejected).		
37	Quotation Validity will be 90 days from the date of techno-commercial bid opening.	Yes / No		



CORPORATE PURCHASING SPECIFICATIONS

AA56142

Rev. No.06

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FULL GLOSS POLYURETHANE FINISHING PAINT

1.0 SCOPE:

This specification governs the quality requirements of Polyurethane Finishing Paint (Two pack system). This is recommended for exterior applications where it is desirable for gloss retention for long periods, chemical and corrosion resistance. This paint is suitable for both brush and spray application.

The paint shall be compatible on surface primed with epoxy priming as per AA56109 and intermediate paint as per AA56112.

2.0 APPLICATION:

Suitable for use in as those exterior surfaces where it is designed to retain colour and gloss for long period in addition to provide excellent chemical and corrosion resistance.

3.0 COLOUR

As specified in BHEL order.

4.0 COMPLIANCE WITH NATIONAL STANDARD:

The material shall comply with the requirements of the following national standard and also shall meet the requirements of this specification.

IS: 13213 - 1991(RA-2007): "POLYURETHANE FULL GLOSS ENAMEL (TWO PACK)"

5.0 FINISH: Smooth and full glossy

6.0 FREEDOM FROM DEFECTS:

The components of the paint shall remain free from defects like hard settling of pigments, skinning, livering (excessive viscosity build up) when kept in closed container till its shelf life.

The dried paint film shall be free from defects like bittyness, floating of pigments, surface haze, orange peeling, colour fading, wrinkles etc.

The paint shall conform to the requirements of ISO 14001 and shall be free from lead/ lead components.

7.0 CHEMICAL COMPOSITION:

The paint consists of two components enamel and a hardener solution to be mixed by volume. The mixing ratio of base and hardener shall be as per supplier's recommendation. Enamel shall consist of an appropriate polyol, pigments, solvents and additives. The hardener solution shall consist of an aliphatic polyisocyanate, solvents, and additives.

Revisions:
As per 40th MOM of MRC-CPO

APPROVED:
INTER PLANT MATERIAL RATIONALISATION
COMMITTEE – MRC(CPO)

Rev. No.06	Amd. No.	Reaffirmed
Dt:26-05-2012	Dt:	Year:

Prepared	Issued	Dt. of 1 st Issue
2 HEP, Bhopal	Corp. R&D	Jan 1991

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CORPORATE PURCHASING SPECIFICATIONS

AA56142

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No such scratch as to show the bare metal

9.1.6. Flexibility and adhesion test

No visible damage or detachment of paint film when tested by Erichsen cupping test up to 8mm.

9.1.7. Weight

9.0 kg, minimum per 10 litres of mixed paint. However it shall be within $\pm 3.0\%$ of type approved sample.

9.1.8. Dry film thickness per coat of application

25 - 30 microns

9.1.9. Volume solids

40.0%, minimum

9.1.10. Flash Point

20°C, minimum of each component

9.1.11. Pot life at 27 $\pm$ 2°C

4.0 hours, minimum

10.0 TYPE APPROVAL

10.1. Samples

Samples for type approval testing shall be accepted only from those manufactures whose manufacturing and testing facilities are considered satisfactory to ensure continuous supply of good product.

10.2. Type Test

10.2.1. Accelerated Tests (IS:13213):

Tests shall be conducted as per procedure given in below for chemical resistance to Sulphuric acid, Caustic potash, Oil & Solvents and the result shall not show any signs of blistering, wrinkling and lifting. Difference in gloss and colour between immersed and un-immersed area of paint film shall be minimum.

PROCEDURE:

Preparation of painted panels generally as per IS: 101.

Apply one coat of epoxy zinc phosphate primer (two pack) at minimum 35microns dry film thickness by spraying and allow to dry for at least 6 hours and not more than 24 hours. Dry rub with emery paper No.400 and wipe clean with a dry soft cloth.

Apply one coat of epoxy surfacer (two pack) at minimum 35 microns dry film thickness by spraying and allow to dry for at least 6 hours and not more than 24hours. Wet rub with water proof emery paper No.400 and allow to dry.

Apply one coat of full gloss polyurethane enamel (two pack) at minimum 35microns dry film thickness by spraying and allow to air dry for 7 days.

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CORPORATE PURCHASING SPECIFICATIONS



Note: For immersion tests prepare and paint both sides of the panels and protect the edges of the panels by sealing with a chlorinated rubber paint.

Resistance to Sulphuric acid:

Immerse 3/4th of the panel in 30% sulphuric acid for 24 hours. Remove the panel, wash in running fresh water and allow it to dry for an hour.

Resistance to Caustic potash:

Immerse 3/4th of the panel in 20% solution of potassium hydroxide for 24 hours. Remove the panel, wash in running fresh water and allow it to dry for an hour.

Resistance to Oil:

Immerse 3/4th of the panel in a mineral lubricating oil for 24 hours. Remove the panel and wipe the excess oil with cotton, wash it with mineral turpentine and allow to dry for 30 minutes.

Resistance to Solvents:

Test one panel for resistance to xylene, ethanol and acetone respectively. Take a clean white sterilized cotton and soak it in the solvent and place it on the painted panel without squeezing the cotton. Immediately cover the soaked cotton with a suitable watch glass and leave it for 6 hours. Remove the watch glass and the soaked cotton, wipe the area with a clean dry cotton.

10.2.2. Durability Test (IS:8662)

10.2.2.1. Normal Outdoor Exposure Test:

Preparation of panels for the test and tests shall be as per procedure given in Annexure. Test panels shall be exposed at an angle of 45° facing south. The test shall satisfy the requirements laid down for at least 12 months after painting.

10.2.2.2. Accelerated Weathering Test (IS:8662)

The test shall satisfy the requirement laid down, after 1000 hrs. test in Xenon Arc Type Weatherometer (with rotating day / night device) with a cycle of 3 minutes rainfall and 17 minutes dry period.

PROCEDURE:

Preparation of panels for the test shall be as per the procedure given in the Annexure. Samples of panels shall be tested in duplicate in a accelerated weathering apparatus and samples drawn from the exposed films shall be evaluated for gloss and various film properties.

The requirement of the test shall be taken to have been satisfied if the performance in respect of the film characteristics is within the limits specified below:

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CORPORATE PURCHASING SPECIFICATIONS

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a)	Gloss	The film shall have a minimum gloss retention of 50% of the original value
b)	Colour	The film shall have a minimum rating of 8
c)	Freedom from Checking, Cracking, Flaking, Chalking, Spotting, Blistering and corrosion	-do-

NOTE:

- Test certificate of Cl.10.2.1 & 10.2.2 shall be forwarded by the supplier in line with IS: 13213 and IS: 8662 at the time of type approval. While supplying the material supplier shall furnish these test certificates after every two years.
- Supplier should submit the results of Cl.10.0 at the time of type approval and once in a year there after.

11.0 TEST CERTIFICATES:

Unless otherwise specified, three copies of test certificates shall be supplied giving the following information.

In addition, the supplier shall ensure to send one copy of test certificates along with the despatch documents to facilitate quick clearance of the material.

AA56142 (Rev.No.06) – FULL GLOSS POLYURETHANE FINISHING PAINT

BHEL Order No.

Supplier's Name & Trade Mark, if any.

Batch No.

Date of Manufacture

Test Results of clause 7.0:

12.0 KEEPING PROPERTIES

When stored under cover in a dry place in the original sealed container under normal temperature conditions, the base and accelerator shall retain the properties of the mixed paint prescribed in this specification for period of not less than 12 months after the date of manufacture which shall not be earlier than one month of the scheduled delivery date mentioned in BHEL order.

13.0 PACKING AND MARKING:

Unless otherwise stated, base and accelerator shall be packed separately in steel containers of appropriate capacities. Each container shall bear the following information:

AA56142: FULL GLOSS POLYURETHANE FINISHING PAINT

BHEL Order No.

Manufacturer's / supplier's name.

AA56142	CORPORATE PURCHASING SPECIFICATIONS 
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Trade mark, if any.

Batch/lot no.

Date of manufacture and expiry.

Quantity supplied.

Mixing ratio.

14.0 ENVIRONMENTAL REQUIREMENTS:

The supplier shall furnish Material Safety Data Sheet (MSDS) covering all information relating to human safety and environmental impacts of the hazardous materials particularly during their transportation, storage, handling and disposal along with each supply. Each container shall be marked with corresponding symbol and minimum worded cautionary notice for flammable / corrosive / toxic / harmful / irritant and oxidizing etc. as applicable.

15.0 REFERRED STANDARDS (Latest Publications Including Amendments):

1) IS:101

2) IS:8662

3) IS:335

4) IS:13213

5) AA56109

6) AA56112

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ANNEXURE (Cl: 10.2.2.1)

PROCEDURE OF DURABILITY TEST:

PREPARATION OF TEST PANELS:

The panel shall be mild steel plate of 1.25mm thick and free from surface defects. Size of the panel for outdoor exposure test shall be 300mm x 300mm and for the Accelerated weathering test 150mm x 150mm. Panels shall be cleaned and the back and edges of the panels shall be protected with two coats of a suitable paint.

The surface of the test panels to be exposed shall be prepared as follows, taking care that total dry film thickness of the complete system shall be between 75 and 100 microns. Air drying of films shall be done at temperature $27 \pm 2^\circ \text{C}$ and at a relative humidity of 65 ± 5 percent.

- Apply one coat of ready mixed paint red oxide zinc chrome primer by brushing and allow to air dry for 24 hours.
- Rub down lightly with waterproof emery paper No.280/330, wipe off the surface with a clean and dry soft cloth and then apply by brushing one coat of the under coating enamel and allow it to dry for 24 hours.
- Rub down, wet, with water proof emery paper No.280/320 wipe off the surface with a clean and dry soft cloth and then apply by brushing one coat of the finishing enamel and allow it to dry for 24 hours.
- Rub down, wet, with water proof emery paper No.220, wash and wipe off water, and when the surface is dry, apply by brushing a second coat of the finishing enamel and allow it to dry for 7 days before subjecting to exposure test.

OUT DOOR EXPOSURE TEST:

Expose in open the test panels prepared as above in duplicate at an angle of 45° facing south. Examine the condition of the exposed films at monthly intervals for the first quarter and thereafter quarterly for the rest of the period for the properties gloss, colour, checking, cracking, flaking, chalking and spotting.

For the above examinations, wash the right hand half of the surface of the two test panels by pouring water and then wiping with a soft cloth or chamois leather. Examine the same half of the test panel at each examination. At the end of the stipulated period for durability test examine the two halves of the test panels. The sample shall be considered satisfactory if the material surface underneath as well as condition of the film in both the halves, the one washed periodically as well as the one washed only for the final examination is satisfactory by the method of evaluation given below. Stray film failure due to extraneous causes other than climatic shall be ignored.

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ANNEXURE - CONTINUED

Evaluation and Rating of Film Characteristics:

- Gloss: Specular 45° and 60° head glossometer reading.
- Colour: The initial rating for a good colour match shall be 10. The colour Retention on exposure shall be expressed and recorded as the abbreviation of the type of colour change followed by numerical rating as follows:

<u>RATING</u>	<u>TYPE OF COLOUR CHANGE</u>
10 - Good match	D - Darkening
9 - Satisfactory	F - Fading
8-7 - Slight colour change	B - Blueing
6-5 - Definite colour change	R - Reddening
4-3 - Bad Colour change	Y - Yellowing
2-1 - Very bad colour change	L - Loss of colour
0 - Complete colour change	

- Checking: Freedom for checking shall be rated as 10 for no checking and 0 for most severe and complete checking.
- Cracking: Freedom for cracking shall be rated as 10 for no cracking and 0 for most severe and complete cracking.
- Flaking: Freedom for flaking shall be rated as 10 for no flaking and 0 for most severe and complete flaking.
- Chalking: Freedom for chalking shall be rated as 10 for no chalking and 0 for most severe and complete chalking.
- Spotting: Freedom from spotting shall be rated as follows:

Numerical value	Rating
10	No spotting
9	Satisfactory
8-7	Slight spotting
6-5	Definite spotting
4-3	Bad spotting
2-1	Very bad spotting
0	Complete spotting

- Blistering and Corrosion: The film shall remain generally free from blisters and the metal underneath shall show no signs of corrosion on exposure for 12 months. A few isolated blisters without any signs of corrosion underneath as well as one or two localized corrosion and/or rust spots shall not constitute a cause of failure.

Duly filled Technical Pre-Qualification Requirements to be submitted along with the offer by vendor

For uploading along with enquiry

Ref No: TME/PQR/ Polyurethane finishing Paint rev.00

Dated: 13/06/2025

Technical Pre-Qualification Requirements (PQR) for “Polyurethane finishing Paint”

Vendor should comply with the following clauses (duly filled PQR shall be submitted along with the offer by vendor):

Cl. No.	Description	Vendor to comment	
		Complied / Not complied	Supporting relevant document to be submitted along with offer
1	Vendor shall supply the Full Gloss Polyurethane finishing Paint (Traffic green-ISC-267) as per specification mentioned in enquiry.	Yes/No	Not Required
2	Vendor should be a Full Gloss Polyurethane Paint manufacturer or authorized trader / distributor of Full Gloss Polyurethane Paint manufacturer. In case vendor is a trader / distributor, vendor to furnish authorization certificate from Full Gloss Polyurethane Paint manufacturer for supply of its products.	Manufacturer/ Trader/ Distributor	In case vendor is a trader/distributor, vendor to furnish authorization certificate from Full Gloss Polyurethane Paint manufacturer for supply of its products.
3	Vendor should have experience of successfully supplying minimum 200 Lt Full Gloss Polyurethane Paint meeting the requirement of properties mentioned in clause 9.1 of BHEL specification AA56142, in preceding 5 years from enquiry opening date. Vendor to ensure that document submitted against c) shall correlate with the submitted PO copy. Document submitted against b) shall correlate with the specification mentioned in PO.	Yes/No	a. PO copies. b. Test certificate (meeting the requirement of properties as per clause 9.1 of BHEL specification AA56142) of supplied paint from manufacturer or test lab duly sealed and signed. c. Supply proof i.e. invoice.
4	For verification of information furnished by vendor, additional documents proofs etc. may be required by BHEL. Vendor to confirm providing the same.	Yes/No	Not Required

Notes:

- Compliance of all the points in above T-PQR is mandatory. In absence of compliance of above, vendor's offer is liable to be rejected.
- Information / compliance / documents submitted by vendor shall be authentic in all aspects. In case any deviation / false information / forged documents are observed, BHEL is free to initiate appropriate punitive proceeding against the supplier.