



CORPORATE PURCHASING SPECIFICATIONS

AA56103

192

Rev. No.02

PREFACE SHEET

ETCH PRIMER

FOR INTERNAL USE ONLY

REMOVE THIS PREFACE SHEET BEFORE ISSUE TO SUPPLIERS

Equivalent / Comparable Standards:

1. INDIAN : IS: 5666-1970 (Reaffirmed 1999)

Suggested/ Probable Suppliers and Grades:

User plants & Replaced Plant Specifications / References:

1. BHOPAL : HE 5011
2. HYDERABAD : IS: 5666-1970
3. TIRUCHY : TP 12001165

Revisions:

As per 40th MOM of MRC-CPO

APPROVED:

INTER PLANT MATERIAL RATIONALISATION
COMMITTEE - MRC(CPO)

Rev. No.02

Amd. No.

Reaffirmed

Prepared

Issued

Dt. of 1st Issue

Dt:26-05-2012

Dt:

Year:

HPEP, Hyderabad

Corp. R&D

Jan 1980

This page intentionally left blank



CORPORATE PURCHASING SPECIFICATIONS

AA56103

190

Rev. No. 02

PAGE 1 of 3

ETCH PRIMER

1.0 GENERAL:

This specification governs the quality requirements of Etch (Pre-treatment) Primer, air drying or farces drying, suitable for use on clean metal surfaces of all types as a treatment prior to application of primer and finish paint. This primer is also commercially known as Wash Primer.

2.0 APPLICATION: Used as a pre-treatment to ferrous and non-ferrous metal surfaces to provide better bonding to the subsequent film. It should be considered as a substrate to normal primer. Application of normal primer over etch primer is essential.

3.0 COMPLIANCE WITH NATIONAL STANDARD:

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

IS: 5666-1970 (Reaffirmed 1999): Etch (Pre-treatment) Primer.

4.0 FINISH:

Smooth and matt.

5.0 COMPOSITION:

The paint shall consist of a two pack system viz. base and accelerator, as per IS: 5666.

Base, generally shall consist of zinc tetroxy chromate pigment dispersed in Polyvinyl butyl resin solution while accelerator consists of Orthophosphoric acid in suitable solutions like, butanol, industrial methylated spirit, etc.

The base shall be in such a condition that uniform and smooth material is obtained by stirring. There shall not be any tendency for Viscosity build up, gelling and pigment settlement throughout the shelf life of the paint.

The base and accelerator shall have mixing ratio as per IS: 5666.

6.0 TEST SAMPLE:

Tender samples will not be required when once the type approval is given and the supplier concerned declares that the material for which the tender is given is of the same quality as the type approved sample.

Representative samples of the material shall be drawn and treated as per IS: 101.

6.1. To draw a representative sample, the contents of the container selected for sampling shall be mixed as thoroughly as possible by shaking or stirring or both or by rolling, so as to bring all portions into uniform distribution.

COPYRIGHT AND CONFIDENTIAL
The Information on this document is the property of BHARAT HEAVY ELECTRICALS LIMITED.
It must not be used directly or indirectly in any way detrimental to the Interest of the company.

Revisions: As per 40 th MOM of MRC-CPO			APPROVED: INTER PLANT MATERIAL RATIONALISATION COMMITTEE – MRC(CPO)		
Rev. No.02	Amd. No.	Reaffirmed	Prepared	Issued	Dt. of 1 st Issue
Dt:26-05-2012	Dt:	Year:	HPEP, Hyderabad	Corp. R&D	Jan 1980

189

AA56103

Rev. No. 02

PAGE 2 of 3

CORPORATE PURCHASING SPECIFICATIONS



6.2. The samples shall be taken in a suitable, clean, dry air-tight glass bottle of one litre capacity. It should be almost but not completely filled by the sample.

6.3. In case of failure of first sample, two samples shall be drawn from other two drums of the same consignment at random and failure of the second sample in complying with the specification will lead to the rejection of the whole consignment.

7.0 PROPERTIES:

When tested in accordance with IS: 101, the test samples shall show the following properties:

7.1. Drying Time:

7.1.1. **Air Drying (Hard Dry):** Clean a $150 \pm 5 \times 100 \pm 3 \times 1.0$ mm unburnished, hard, aluminium/ mild steel panel with mineral hydrocarbon solvents and apply a coat of the material by appropriate method and allow the panel to dry at laboratory drying conditions in a vertical position. When thus dried for one hour, the panel shall show no signs of sagging, pin-holing or any other defect.

7.1.2. **Force Drying:** The paint film coated on an aluminium panel prepared as in 7.1.1 shall be force dried for 15 minutes at 85 to 100°C and allowed to cool to room temperature for one hour. The film shall show no signs of sagging, pin holing or any other defect.

7.2. **Consistency:** The Consistency of the mixed paint shall be within 20 ± 5 seconds at $27 \pm 2^\circ$ C of the approved sample.

7.3. **Finish:** The finish of the film prepared as in 7.1.1 and 7.1.2 above shall be smooth and matt and shall not be inferior to the approved sample.

7.4. **Pot Life:** The mixed paint shall be suitable for use for not less than 8 hours after mixing.

7.5. **Compatibility with Subsequent coats:** The paint film as prepared in 7.1 above shall be able to take an overcoat of primers conforming to BHEL CPS Nos. AA56101, AA56102, AA56104, AA56105, AA56106 and cellulose finishes after a drying period of 4 to 6 hours without any lifting, warping, wrinkling or blistering.

8.0 **TYPE APPROVAL:** Samples for type approval testing shall be accepted only from those manufacturers whose manufacturing and testing facilities are considered satisfactory to ensure continuous supply of good product.

9.0 TEST CERTIFICATE:

Unless otherwise stated, three copies of test certificate shall be supplied along with each consignment giving the following information:

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

AA56103 (Rev.No.02) – ETCH PRIMER

BHEL Order No.

Manufacturer's/ Supplier's Name & Trade mark, if any

Batch/ Lot No.

COPYRIGHT AND CONFIDENTIAL. The Information on this document is the property of BHARAT HEAVY ELECTRICALS LIMITED. It must not be used directly or indirectly in any way detrimental to the Interest of the company.



CORPORATE PURCHASING SPECIFICATIONS

AA56103

Rev. No. 02

PAGE 3 of 3

188

Quantity supplied.

Date of Manufacture & Expiry.

Test Results of clause 7:

10.0 KEEPING PROPERTY:

When stored in a covered dry place in the original sealed containers under normal temperature conditions, the base and accelerator, shall retain the properties for a period of 12 months after the date of manufacture which shall not be earlier than one month of the scheduled delivery date mentioned in the purchase order. When mixed in the recommended proportions the mixture should yield the properties prescribed in this specification.

11.0 PACKING AND MARKING:

Unless otherwise stated, base and accelerator be packed separately in containers of appropriate capacities. Each package shall be suitably packed to prevent damage during transit. Each Container shall bear the following information:

AA56103 – ETCH PRIMER

BHEL Order No.

Manufacturer's/ Supplier's Name, Trade Mark, if any.

Batch No.

Date of Manufacture & Expiry.

Quantity supplied.

12.0 REJECTION AND REPLACEMENT:

If the material does not comply with the requirements of this specification during receipt inspection at BHEL or if any defect is found during further processing of the material, BHEL reserves the right to reject the whole consignment notwithstanding any previous certification of satisfactory testing and/or inspection. The supplier shall undertake to replace the rejected material free of cost and the rejected material shall be taken back by the supplier after fulfilling all the commercial terms and conditions.

13.0 REFERRED STANDARDS (Latest Publications Including Amendments):

- | | |
|------------|------------|
| 1) AA56101 | 4) AA56105 |
| 2) AA56102 | 5) AA56106 |
| 3) AA56104 | 6) IS: 101 |