



COSMIC INDUSTRIAL LABORATORIES LIMITED

(Approved by Government, Defence and others)

Testing and characterization, calibration, failure analysis, remnant life assessment, design, contract r&d, technology development, prototype development, product engineering, technology proving, product evaluation, high value special materials and product development, waste prevention, OSHA related testing, engineering solution, gold and jewelry testing, training in testing, quality assurance and r&d management

- Materials
- Chemicals
- Food
- Environment
- Soil
- Civil structures
- Engineered products

TEST REPORT

Ref. No. : 2003/11/19/16188 – 16191 No. of Pages : THREE M/s. AARGEE ASSOCIATES Sreevalsam (Next to BJP Dist. Office) Kodimatha, Kottayam – 686 039, KERALA Sample (s) Tested: Galvanised & Polymer “J” Bolts of Roofing Sheets	Date : 29.11.2003 Page : 1 Requested by : Mr. S. G. BABU Designation : Manager (Sales & Service) Customer Ref. : Letter dated 18.11.2003 Specification : Not Provided Test Method : Customer’s (Ref. TPS 459)
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Test Starting – Date & Time: 2003/11/20/13.00	Test Ending – Date & Time: -2003/11/28/16.00
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HUMIDITY CHAMBER TEST

The Humidity Chamber Test was conducted on all the four samples. The nature of the samples, test conditions, the methods used for preparing the specimen is described in the following.

TEST PROCEDURE

The Samples are cleaned with isopropyl alcohol and exposed for Humidity at temperature 50°C ± 1°C and Relative Humidity 93 ± 5% for 170 hours. After 170 hours, samples are taken out, cleaned with water and rinsed with double distilled water and dried with tissue paper and observed for corrosion. Observations are as in the following.

Nature of Sample	Galvanised “J” Bolt	
Coating	Without Polymer Coating	
Cosmic No.	16188	16189
Photographs	Fig.1, No.4	Fig.1, No.1
Sample Size	6.5 φ mm	8.0 φ mm
Thread Side	7.5 φ mm	9.0 φ mm
Length, mm	123.6	152.2
OBSERVATIONS	Heavy Corrosion was observed throughout the surface of the sample.	Heavy Corrosion was observed throughout the surface of the sample.
Photographs	Fig.2, No.7	Fig.2, No.5

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for Cosmic Industrial Laboratories Ltd.

Dr. G. A. Bhat
Director and Vice Chairman
Authorized Signatory