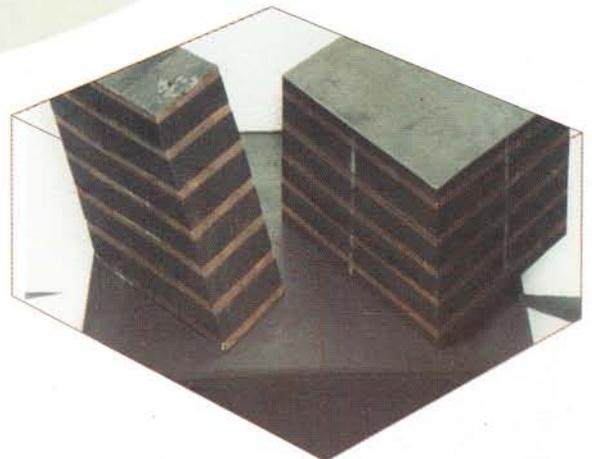
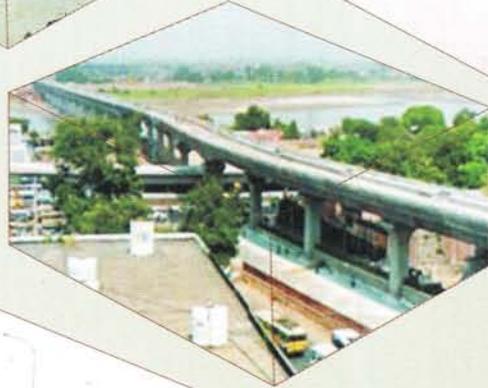
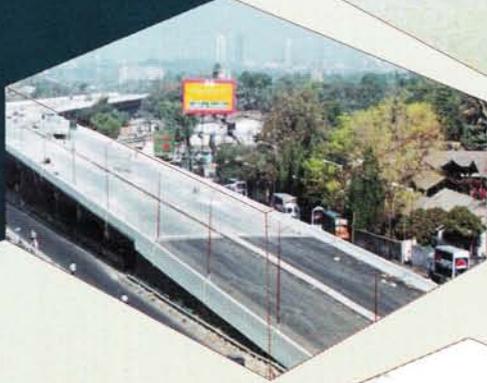


# POLYMER PRODUCTS



**ELASTOMERIC BEARING**

# Polymer Products

## INTRODUCTION

POLYMER PRODUCTS is a name synonymous with quality bridge bearing supplier in Civil Engineering Industry. Since its inception in 1978, the Company has grown manifold and is now considered as a leader in the industry. Elastomeric Bearings are manufactured at its "State of the Art" manufacturing and testing facility at Nasik. The operations is managed by experienced Rubber Technologist and assisted with qualified and experienced team of Engineers, Chemist and supervisory staff.



## VAST EXPERIENCE OF POLYMER PRODUCTS

We have the pleasure of supplying Elastomeric bearings & Seismic pads for more than Three decades for prestigious projects like Konkan Railways, MTP Railways, NHAI Projects, MSRDC flyovers, Railway ROB, CPWD & PWD flyovers all over India.

Considering our prompt services and timely delivery, we have been able to supply repeatedly to various contracting companies not only in India but internationally as well. We have supplied more than Hundred thousands of Bearings for several Rail & Road Bridge projects all over the world.

## ADVANTAGES OF ELASTOMERIC BEARINGS

The Elastomeric Bearings manufactured from chloroprene raw material has several advantages. The raw elastomer is virgin polychloroprene capable of being vulcanized with compounds to produce Elastomeric bearings

Elastomeric bridge bearings consist of layers of rubber compound, which is a designed mix of Chloroprene Rubber, Carbon Black, Plasticisers Curatives, Antidegradents, Accelerators etc., suitably sandwiched & integrally bonded to cleaned & chemically treated steel plates. The required shape and size of these bearings are obtained during vulcanization process.

### ● EXCELLENT LOAD BEARER

Elastomeric bearings are vital part of the super structure. A bridge bearing, is that part of bridge, which directly bears all pressure/load and force of the super structure and transmits the same to the supporting structure i.e. Piers & Columns. It provides a designed & expected degree of freedom of relative movements in different directions caused by various forces acting on the bridge.

### ● HARD - STILL FLEXIBLE

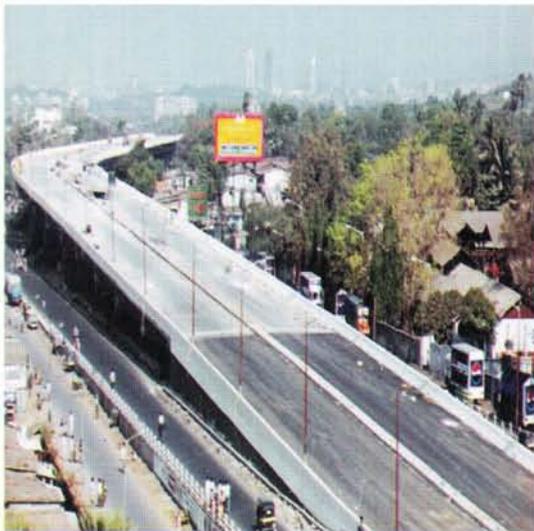
Elastomeric bearings have the virtue of combining the impossible – being hard – still flexible. They have natural relative resistance to the pressure as well as weather. Their action in response to horizontal movements and forces is instantaneous, to overcome the initial friction.

Elastomeric bearings have low shear stiffness and hence hardly any horizontal pressures are transferred to the super structure and this results in considerable economy in the sub structure design.

### ● ECONOMICAL

Elastomeric bearings are simple in design and can be easily moulded. These bearings have no moving parts like in case of Rocker-Roller bearings

In other words, it is simply a flat rubber pad, thick and hard as required by the specifications called for and to be placed between the girder and the pier or abutment. There is no sliding motion between the Elastomeric bearing, beam and the pier. Whenever the beam expands or contracts, the Neoprene pad deflects in shear & thus the cost of the bearings is much less in comparison with that of steel bearings.



# Polymer Products

## MORTH & RDSO APPROVAL

We have been in the approved list of M.O.R.T.H. (Ministry of Roads Transport and Highways) for the last several years for the supply of Elastomeric (Neoprene) bearings. The approval has been granted to us after a stringent factory inspection, in accordance with the IRC guidelines. We are also approved by R.D.S.O. (Research Designs and Standards Organisation, Ministry of Railways) for Supply of Elastomeric bearings and our bearings have been successfully tested & installed in accordance with UIC specifications.



## MANUFACTURING FACILITY

Our responsibility to stringent quality control, starts with careful scrutiny of raw materials. At every stage of production, right from mixing to final moulding, enough care is taken to choose proper kind and ratio of raw materials.

Steel plates are shot-blasted to create coarse surface of virgin material before applying bonding material. Our bridge bearings are moulded to conform every norm and specification of design of MORTH., I.R.C., and U.I.C., as expected by the competent authorities.

The manufacturing facilities are equipped with best of machineries and the process is monitored by our expert team. To enhance the production capacity additional moulding machineries and press were added to the existing manufacturing setup with the aim of providing quick supplies to our clients.



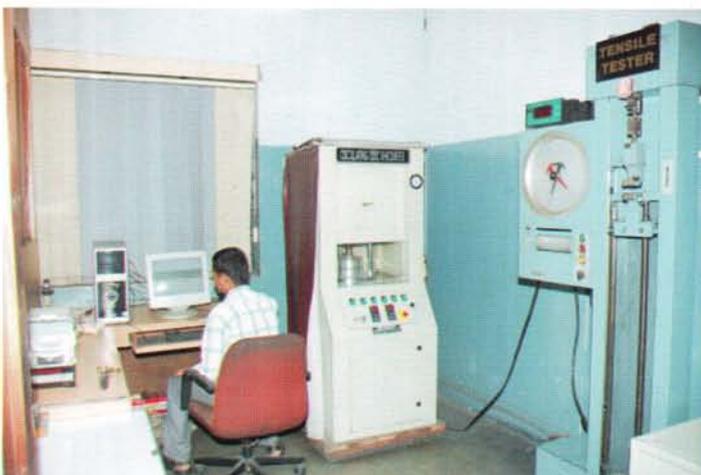
## TEST FACILITY

Over the last several years, Polymer Products has upgraded its testing facilities in order to comply with the requirements of MORTH & RDSO. All the essential tests both at raw material stage as well as that of finished product are conducted in line with I.R.C. or U.I.C. specification as required by the competent authorities.

The testing is done under the guidance of Rubber Technologist and the actual testing is conducted by team of competent persons having vast experience in this field.

Various tests conducted on finished bearings are -

- 1) Determine the Vertical Stress / Strain Curve
- 2) Determine Shear Modulus "G"
- 3) Determine the ultimate strength in Compression
- 4) Verify the bond between Rubber and Metal Plates



## INSTALLATION OF BEARINGS

The bearings supplied by us are packed and transported with due care to avoid any mechanical damage during transit. The clients should ensure that during storage & handling of the bearings at site necessary care is taken to avoid contamination with oil, grease & dirt.

The installation of Elastomeric bearings is very simple but proper fixing of bearing is equally important. The bearings must be placed between true horizontal surfaces in line with the tolerances specified in the code. The procedure for installation of bearings as specified in IRC-83 (Part-II) for cast - in- place concrete construction or precast concrete or steel super structure shall be strictly followed.

## PRODUCTS MARKETED BY OTHER DEPARTMENTS

- 1) Prestressing Materials & Equipments
- 2) POT/PTFE Bearings
- 3) Void Former
- 4) Lifting & Well Sinking Jacks



Prestressing Anchorages



Void Former



POT/PTFE bearings



Well Sinking Jacks



Prestressing Jacks


  
 Government of India  
 Ministry of Railways  
 New Delhi-110001

100, P. O. Box No. 100  
 Sector Office, All India Institute of Standards  
 New Delhi-110001  
 Government of India, Ministry of Railways  
 New Delhi-110001

No. CR/PBE/Reg. \_\_\_\_\_ Dated: 24/02/2007

Mr. Rajan Prasad,  
 72 Mahavir Centre,  
 Sector 17, Vashi,  
 Navi Mumbai-400 705.

Sub: Review in the approved list of fabrication and supply of Elastomeric Bearings.  
 Ref: Your letter no. PPR/ISO/REG/CR/4202/ dated 21-08-2007.

Dear Sir,

Based on the verification of the site structures and test facilities available at your works your firm is again brought on the approved list of suppliers for fabrication and supply of Elastomeric Bearings.

1. Any change in the address of your office or manufacturing units shall be brought to the notice of Director General (S&S), RDSO, Lucknow. You are liable to be dropped from the approved list if your product is found unsatisfactory at any stage of Manufacture and inspection.

2. This approval will be valid for a period of three years, ending on last day of the 30<sup>th</sup> month from the month of issue of this letter.

3. It is the responsibility of firm to submit the application form for renewal when the validity of the approval.

4. Please acknowledge receipt of this letter.

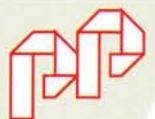
Yours faithfully,  
 Director (S&S/ISO)  
 For Director General (S&S)

Copy forwarded for information and necessary action to:  
 Chief Sledge Engineer:  
 i) Central Railway, Mumbai (327-400 001)  
 ii) Eastern Railway, Feroze Khan, Kolkata-700 001  
 iii) East Central Railway, Raipur  
 iv) East-Coast Railway, Bhubaneswar  
 v) Northern Railway, Banda House, New Delhi- 110 001  
 vi) North Central Railway, Allahabad  
 vii) North Eastern Railway, Guwahati-781 001  
 viii) North-Western Railway, Jaipur.

CERTIFICATE  
 Management  
 DYNAMIC POLYMER PRODUCTS  
 PVT. LTD.  
 72, Mahavir Centre, Sector 17, Vashi, Navi Mumbai - 400 705.

MASTER COPY  
 CONTROLLED COPY

# POLYMER PRODUCTS



Address: 72, Mahavir Centre, Sector - 17, Vashi, Navi Mumbai - 400 705.

Tel: + 91-22- 2789 1310 / 2789 2628, Fax: +91-22- 2789 9325

E-mail: polymerproducts09@gmail.com

Factory: H - 32, M.I.D.C, Satpur, Shivaji Nagar, Nashik-422 007

Tel: +91-253- 6604461, Tel/ Fax: +91-253- 2350935

E-mail: polymerproduct@rediffmail.com