

# Make: "SANDHYAFLEX"

## **Elastomeric Bridge Bearing**



We provide high quality Elastomeric Bridge Bearings, also called neoprene bridge bearings, Bridge Bearing and elastomeric bearings. These bearings are manufactured using high grade materials (CR, Black Carbon Reinforcement, and Other Chemical with the aid of contemporary techniques at our advanced production unit. The bearings provide adequate support to bridges for absorbing vibrations and preventing their deformation. In addition, we offer these Elastomeric Bridge Bearings at reasonable prices.

#### Features

- Extended durability
  - Excellent flexibility under lateral load
  - Easy to install

We are one of the eminent manufacturers and suppliers of Elastomeric Bridge Bearing Pads. These pads are manufactured using the finest quality material, procured from reliable vendors under the observation of seasoned professionals. Offered pads are checked at our wellequipped facility on various parameters to ensure its long service life. These pads provide economical solution used to withstand loads and deformation in any direction for the





construction of large-span bridges and buildings. Elastomeric Bridge Bearing Pads are available at industry leading prices.

#### Application

Laminated elastomeric bearing or neoprene bridge bearing pads are simple to install as contrast with different sorts of bearings deployed and demand zero handling. Dissimilar to numerous elastomer, neoprene rubber experiences no marked contraction at least temperatures when bridge neck thermal contraction is performed at optimum; as such contraction can be harmful to structure and bearing. Suitably compounded and precisely outlined bearings can be anticipated to work productively for minimum 15 years.

As utilitarian bearings for sell beams, pre-stressed concrete or pre-cast concrete in buildings and bridge are imperative, our elastomeric bridge bearings allow uniform and smooth transfer to load through beam to the frame as well as permit beam revolution for bearings because of beam deflection under load. These also permit longitudinal and lateral beam movement that is induced by heat pressures. They do not possess any movable components. In addition, thermal contraction and expansion are assimilated by ability of pad to offer and take shear. No sliding movement between pad and abutment or between pad and beam is present.

#### Benefits

Our bridge deck are composed of numerous elastomeric material laminates that is separated through steel supports. The complete bearing size and laminate thickness is as per demand of transferred load. Bearings possessing steel plates are supported should be compresses or cast vulcanizes or molded as one unit in mold below heat and pressure.

#### **Testing Of Our Bearings**

In house manufacturing test of every bearing is completed in the presence of the client or his representative. Trials adhere to IRC 83 PART II/UIC772, Spec - EN-1337-3. Particulars are as per



affirmed examination on either level 2 or level 1 or long and short duration's compression trails of approximately 800 ton with levelled shear load of around 150 ton can be tested in our facility.



Four Type of Test Conducted on Finish Bearing after 7 day of Manufacturing before 6 month as per specification

- 1. Elastic Modula's Test.
- 2. Shear Modula's Test.
- 3. Adhesion Strength
- 4. Compression Test

# **Role of the Elastomeric Bearing Pad**

Bridge flexibility is primarily achieved by a component called bridge elastomeric bearing pad. This is typically made of a strong and pliable material such as neoprene—a type of heavy-duty industrial rubber. These pads are placed in between superstructures such as the bridge beam and substructures such as the vertical supports called piers. Their primary function is to distribute superstructure loads to the substructure and allow the superstructure to undergo necessary movements in irregular environmental conditions without creating any harmful stresses that might compromise the structural integrity of the bridge. When the structural integrity of the bridge is compromised, the bridge could collapse.





AN ISO:9001:5015 Certified Company ELASTOMERIC BRIDGE BEARING

As per IRC 83 (Part II)2018 and MoRTH Specification

Preventing collapse is not the only function of an elastomeric bearing pad. The pads extend the life of bridges by

reducing wear and tear on bridge materials. The pads help governments save money by delaying the replacement

of bridges, much like the way shoes allow human beings to walk long distances.

Incidentally, elastomeric bearing pads were installed at the location of the Bay Bridge failure as part of a 1999

seismic retrofit project. ELASTOMERIC DESIGN3D Engineering Simulation in Bridge Design Finite element analysis of a bridge elastomeric bearing pad carried out with SimScale

Because bridge elastomeric bearing pads are crucial for a safe and cost-effective bridge design, they are

extensively prototyped and tested before they are used in production.

Using a simulation software like SimScale as part of the process, it is possible to virtually test an elastomeric

bearing pad under different design and load assumptions. For example, the bearing pad can be assumed to be

composed of an elastomeric material reinforced by steel plates, and three basic load cases can be simulated and

observed: 1) compression, 2) compression with shearing, and 3) compression with rotation.

The results can be analyzed by observing Cauchy stresses in a contour plot. One can even observe that with the

introduction of steel plates, the load-carrying capacity of the bearing is enhanced. ELASTOMERIC BEARING PADConclusion

As we have seen, designing elastomeric bearing pads using simulation software play a crucial role in bridge safety,

dependability, and longevity. If you want to give it a try, create a free Community account here and then copy this





template of an elastomeric bearing pad simulation, change the settings or the CAD model and perform your own analysis.

You can learn more about the role of engineering simulation in construction applications by downloading a free

infographic here.

Set up your own simulation via web in minutes by creating a free account on the SimScale platform. No installation,

special hardware or credit card is required.

The Bay Bridge was designed to withstand earthquakes by implementing technology that allowed the bridge to

adapt to such dramatic environmental instances. In fact, all bridges are designed to be moderately flexible with an

embedded "bend or break" design philosophy; it is assumed that the bridge will be subject to somewhat

unpredictable external forces and torques caused by high wind speeds, temperature changes, heavy traffic, and

sometimes even earthquakes. So if flexibility is crucial, how is it achieved? The San Francisco-Oakland Bay Bridge

#### Properties of Elastomer

| Phys | ical Properties |                   | Unit | Specified     | Test Method       |
|------|-----------------|-------------------|------|---------------|-------------------|
| 1    | Hardness        |                   | IRHD | 60 <u>+</u> 5 | IS:3400 (Part II) |
| 2    | Minimum Tensile | Strength (Moulded |      | 17.0          |                   |
|      | Test Piece,     | Test Piece from   | MPa  | 14.0          | IS:3400 (Part I)  |
|      | Bearing         |                   |      |               |                   |

Address: 5-24-1223/8/1, Ambedkar Nagar, Gajularamaram, Hyderabad – 500055. AN ISO 9001:2015 Certified Company Contact No: 9652998932

Contact No: 9652996952

GSTIN: 36GNLPS1299P1ZS

Email : sandhyaprises@gmail.com

Website: www.sandhyaflex.com

WhatsApp: 9652998932

YouTube: www.youtube.com/c/SANDHYAENTERPRISES

Website : http://www.sandhyaflex.com/pvc-water-...



| 3      | Minimum Elongation at Break                     |          | 400                  |                    |
|--------|---|----------|----------------------|--------------------|
|        | (Moulded Test Piece, Test                       | %        | 350                  | IS:3400 (Part I)   |
|        | Piece from Bearing                              |          |                      |                    |
| 4      | Maximum Compression Set (24h,100                | %        | 35                   | IS:3400 (Part X)   |
|        | <u>+</u> 1∘C)                                   |          |                      |                    |
| Accele | erated aging (72h,100 <u>+</u> 1ºC) Maximum Cha | nge from | un-aged Value        |                    |
| 5      | Maximum Change in Hardness                      | IRHD     | +5                   | IS:3400 (Part IV)  |
| 6      | Maximum Change in Tensile Strength              | %        | -15                  | IS:3400 (Part IV)  |
| 7      | Maximum Change in Elongation                    | %        | -30                  | IS:3400 (Part IV)  |
| 8      | Shear Modulus at Nominal                        | G.MPa    | 0.9 ( <u>+</u> 0.18) |                    |
|        | Temperature                                     |          |                      |                    |
| 9      | Ash Contant                                     | %        | 5. Max               | IS:3400 (Part XII) |
| 10     | Plymers   | %        | 60.0min              | IS:3400 (Part XII) |

#### Typical Size of Laminated Bearings

|            | Dim    | ension EE | BB    | Dir    | mension S | L     |                |                                     |   |  |                             |                   |       |                |                             |
|------------|--------|-----------|-------|--------|-----------|-------|----------------|-------------------------------------|---|--|-----------------------------|-------------------|-------|----------------|-----------------------------|
| Sr.<br>No. | Length | Width     | Thick | Length | Width     | Thick | No<br>of<br>SL | Total<br>Thick<br>of<br>Steel<br>mm | Total<br>Middle<br>Elastomer<br>Thickness | Total Top<br>and<br>Botoom<br>Elastomer<br>Thickness | Thick<br>T & B<br>Elastomer | No<br>of<br>Layer | Thick | No of<br>Layer | Total<br>Thick<br>of<br>EBB |
| 1          | 100    | 100       | 25    | 88     | 88        | 3     | 3              | 9                                   | 8   | 8  | 4                           | 2                 | 8     | 1              | 25                          |
| 2          | 200    | 100       | 30    | 188    | 88        | 3     | 2              | 6                                   | 16  | 8  | 4                           | 2                 | 8     | 2              | 30                          |
| 3          | 200    | 200       | 33    | 188    | 188       | 3     | 3              | 9                                   | 16  | 8  | 4                           | 2                 | 8     | 2              | 33                          |
| 4          | 200    | 100       | 33    | 188    | 88        | 3     | 3              | 9                                   | 16  | 6  | 3                           | 2                 | 8     | 2              | 31                          |
| 5          | 320    | 160       | 33    | 308    | 148       | 3     | 3              | 9                                   | 16  | 6  | 3                           | 2                 | 8     | 2              | 31                          |
| 6          | 320    | 160       | 39    | 308    | 148       | 3     | 3              | 9                                   | 20  | 10   | 5                           | 2                 | 10    | 2              | 39                          |
| 7          | 320    | 160       | 40    | 308    | 148       | 3     | 3              | 9                                   | 20  | 11   | 5.5                         | 2                 | 10    | 2              | 40                          |
| 8          | 400    | 200       | 40    | 388    | 188       | 3     | 3              | 9                                   | 20  | 11   | 5.5                         | 2                 | 10    | 2              | 40                          |
| 9          | 400    | 200       | 44    | 388    | 188       | 3     | 4              | 12                                  | 24  | 8  | 4                           | 2                 | 8     | 3              | 44                          |
| 10         | 400    | 200       | 48    | 388    | 188       | 4     | 4              | 16                                  | 24  | 8  | 4                           | 2                 | 8     | 3              | 48                          |
| 11         | 400    | 200       | 50    | 388    | 188       | 3     | 4              | 12                                  | 30  | 8  | 4                           | 2                 | 10    | 3              | 50                          |
| 12         | 400    | 250       | 50    | 388    | 238       | 3     | 4              | 12                                  | 30  | 8  | 4                           | 2                 | 10    | 3              | 50                          |

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GSTIN: 36GNLPS1299P1ZS

Email : sandhyaprises@gmail.com

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| 13 | 400 | 200 | 52  | 388 | 188 | 3 | 4 | 12 | 30 | 10 | 5   | 2 | 10 | 3 | 52  |
|----|-----|-----|-----|-----|-----|---|---|----|----|----|-----|---|----|---|-----|
| 14 | 400 | 250 | 52  | 388 | 238 | 3 | 4 | 12 | 30 | 10 | 5   | 2 | 10 | 3 | 52  |
| 15 | 400 | 200 | 55  | 388 | 188 | 3 | 5 | 15 | 32 | 8  | 4   | 2 | 8  | 4 | 55  |
| 16 | 400 | 250 | 55  | 388 | 238 | 3 | 5 | 15 | 32 | 8  | 4   | 2 | 8  | 4 | 55  |
| 17 | 400 | 250 | 57  | 388 | 238 | 3 | 4 | 12 | 36 | 9  | 4.5 | 2 | 12 | 3 | 57  |
| 18 | 400 | 250 | 60  | 388 | 238 | 4 | 4 | 16 | 36 | 8  | 4   | 2 | 12 | 3 | 60  |
| 19 | 500 | 250 | 60  | 488 | 238 | 4 | 4 | 16 | 36 | 8  | 4   | 2 | 12 | 3 | 60  |
| 20 | 630 | 220 | 61  | 618 | 208 | 3 | 5 | 15 | 40 | 6  | 3   | 2 | 10 | 4 | 61  |
| 21 | 710 | 220 | 61  | 698 | 208 | 3 | 5 | 15 | 40 | 6  | 3   | 2 | 10 | 4 | 61  |
| 22 | 400 | 250 | 65  | 388 | 238 | 3 | 5 | 15 | 40 | 10 | 5   | 2 | 10 | 4 | 65  |
| 23 | 500 | 250 | 65  | 488 | 238 | 3 | 5 | 15 | 40 | 10 | 5   | 2 | 10 | 4 | 65  |
| 24 | 500 | 320 | 66  | 488 | 308 | 3 | 6 | 18 | 40 | 8  | 4   | 2 | 8  | 5 | 66  |
|    |     |     |     |     |     |   |   |    |    |    |     |   |    |   |     |
| 25 | 500 | 320 | 73  | 488 | 308 | 4 | 6 | 24 | 40 | 9  | 4.5 | 2 | 8  | 5 | 73  |
| 26 | 500 | 320 | 74  | 488 | 308 | 3 | 6 | 18 | 50 | 7  | 3.5 | 2 | 10 | 5 | 75  |
| 27 | 500 | 320 | 75  | 488 | 308 | 4 | 6 | 24 | 40 | 10 | 5   | 2 | 8  | 5 | 74  |
| 28 | 500 | 320 | 80  | 488 | 308 | 4 | 5 | 20 | 48 | 12 | 6   | 2 | 12 | 4 | 80  |
| 29 | 500 | 400 | 84  | 488 | 388 | 3 | 7 | 21 | 48 | 15 | 7.5 | 2 | 8  | 6 | 84  |
| 30 | 500 | 400 | 85  | 488 | 388 | 3 | 7 | 21 | 48 | 16 | 8   | 2 | 8  | 6 | 85  |
| 31 | 500 | 360 | 90  | 488 | 348 | 3 | 7 | 21 | 60 | 9  | 4.5 | 2 | 10 | 6 | 90  |
| 32 | 500 | 360 | 91  | 488 | 348 | 3 | 7 | 21 | 60 | 10 | 5   | 2 | 10 | 6 | 91  |
| 33 | 500 | 360 | 94  | 488 | 348 | 4 | 6 | 24 | 60 | 10 | 5   | 2 | 12 | 5 | 94  |
| 34 | 500 | 360 | 96  | 488 | 348 | 4 | 6 | 24 | 60 | 12 | 6   | 2 | 12 | 5 | 96  |
| 35 | 500 | 400 | 96  | 488 | 388 | 4 | 6 | 24 | 60 | 12 | 6   | 2 | 12 | 5 | 96  |
| 36 | 560 | 400 | 96  | 548 | 388 | 4 | 6 | 24 | 60 | 12 | 6   | 2 | 12 | 5 | 96  |
| 37 | 560 | 400 | 105 | 548 | 388 | 6 | 5 | 30 | 64 | 11 | 5.5 | 2 | 16 | 4 | 105 |
| 38 | 800 | 800 | 110 | 788 | 788 | 5 | 6 | 30 | 70 | 10 | 5   | 2 | 10 | 7 | 110 |
| 39 | 800 | 900 | 110 | 788 | 888 | 5 | 6 | 30 | 70 | 10 | 5   | 2 | 10 | 7 | 110 |
| 40 | 600 | 400 | 112 | 588 | 388 | 5 | 6 | 30 | 70 | 12 | 6   | 2 | 10 | 7 | 112 |

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| 41 | 600 | 400 | 121 | 588 | 388 | 3 | 8  | 24 | 84         | 13 | 6.5 | 2 | 12 | 7  | 121 |
|----|-----|-----|-----|-----|-----|---|----|----|------------|----|-----|---|----|----|-----|
| 42 | 600 | 400 | 128 | 588 | 388 | 4 | 8  | 32 | 84         | 12 | 6   | 2 | 12 | 7  | 128 |
| 43 | 600 | 400 | 137 | 588 | 388 | 4 | 7  | 28 | 96         | 13 | 6.5 | 2 | 16 | 6  | 137 |
| 44 | 600 | 400 | 144 | 588 | 388 | 5 | 7  | 35 | 96         | 13 | 6.5 | 2 | 16 | 6  | 144 |
| 45 | 600 | 400 | 153 | 588 | 388 | 6 | 7  | 42 | 96         | 15 | 7.5 | 2 | 16 | 6  | 153 |
| 46 | 700 | 400 | 169 | 688 | 388 | 5 | 8  | 40 | 112        | 17 | 8.5 | 2 | 16 | 7  | 169 |
| 47 | 600 | 600 | 199 | 588 | 588 | 6 | 9  | 54 | 128        | 17 | 8.5 | 2 | 16 | 8  | 199 |
| 48 | 700 | 700 | 220 | 688 | 688 | 4 | 11 | 44 | 160        | 16 | 8   | 2 | 16 | 10 | 220 |
| 49 | 800 | 800 | 285 | 788 | 788 | 6 | 13 | 78 | 192        | 15 | 7.5 | 2 | 16 | 12 | 285 |
| 50 | 900 | 900 | 285 | 888 | 888 | 6 | 13 | 78 | <b>192</b> | 15 | 7.5 | 2 | 16 | 12 | 285 |

#### **Manufacturing Tolerances**

| Sr.No. | Items  | Tolerances   |
|--------|--|--|
| 1      | Overall Linear Plan Dimensions   | -0mm,+6mm  |
| 2      | Total Mean Bearing Thickness<br>(The mean thickness is the arithmetic average of the thickness<br>measured at five points on the major surface as indicated for<br>various shaped bearings<br>Rectangular : Corners and Centre<br>Circular : Corners of Inscribed Square and Centre) | -0,+5%   |
| 3      | Parallism  |  |
|        | <ul> <li>a) Of top surfaces of Bearing with respect to the Bottom<br/>surface as datum</li> </ul>  | 1 in 200mm   |
|        | B0 Of one side surface with respect to the other as datum  | 1 in 100mm   |
| 4      | Thickness of Individual Layer of Elastomer   |  |
|        | a) Inner layer of Elastomer  | <u>+</u> 10%   |
|        | b) Outer layer of Elastomer  | -0nn,+2mm  |
|        | c) Side Cover  | -0nn,+3mm  |
| 5      | Dimension of Laminates   |  |
|        | a) Plan Dimension of laminates   |  |
|        | b) Thickness of laminates  |  |
|        | <ul> <li>Parallelism of Laminate with respect to bearing bas as<br/>datum (with respect to diameter for plates circular in plan<br/>and shorter side for plates rectangular in plan)</li> </ul>  |  |
| 6      | Flatness (Flatness shall be assessed by placing a straightedge<br>along the diagonal or diameter, The gap between the straightedge<br>and the surface shall not exceed the tolerances specified below)   |  |
|        | a) Load bearing surface of the bearing   | '0.3% of diameter<br>or diagonal or 2%<br>of mean beaing |

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As per IRC 83 (Part II)2018 and MoRTH Specification

|    |                | thickness<br>whichever is<br>higher              |
|----|----------------|--|
| b) | Steel laminate | 1% of diameter or<br>diagonal (max. of<br>1.5mm) |

#### Type of Elatomeric Bearing

| S.No | Туре | Description  | Images  |
|------|------|--|---|
| 1    | A    | Plain Pad/ Strip Bearing   |   |
| 2    | B    | Laminated Bearing  | 2         E = N.Inder of Internel Lay           1 |
| 3    | C    | Laminated Bearing with Thicker end laminates<br>Laminate may be on either side or on both side Ensures<br>better load distribution<br>Ensures better rotation<br>Back lifting of bearing under shear may be avoided  |   |
| 4    | D    | Laminated Bearings with thicker end laminates exposed<br>Corrosion protection is required on exposed steel surface<br>May be useful for better frictional resistance at bearing<br>structure interface<br>Friction if taken into account, should be based on tested<br>and certified value useful for contact with steel structure |   |
| 5    | E    | Bearings with Separate steel plate directly vulcanised<br>with the bearing<br>Lifting / separation of bearing elastomer at edges from<br>exposed steel plate should e avoided under all loading  |   |
| 6    | F    | Bearing with Positive Anchorage Separate plates provide<br>ease of replacement and fool-proof positive anchorage.<br>Plates may be connected to covered/ exposed end<br>laminates Internal Fastening and Positive Designed   |   |

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| 7 | G | Bearing with PTFE bonded to the Elastomer.<br>Bond of Elastomer to PTFE is critical and Vulnerable  | PTFE top<br>Rubber<br>Steel plate           |
|---|---|---|---|
| 8 | H | Bearings with Sliding Interface<br>Refer relevant part covering sliding element for design of sliding<br>interface Other edn may be of any other option as above  | Top plate<br>Sliding plate (stainless stee) |
| 9 | I | <ul> <li>Bearing with restraint against translation to simulate support condition</li> <li>a) Typical detail of restraint in form of central pin</li> <li>b) Typical Detail of Side restraint Restraints shall be designed based on relevant Part or other relevant IRC code</li> </ul> |   |

# Test on Completer Bearing or Sample

| S.No | Clause | Description  | Images             |  |
|------|--------|--|--------------------|--|
| 1    | 7      | Test for Determination of Shear Modulus                      | _ F <sub>t</sub> _ |  |
|      |        | Test Piece   |                    |  |
|      |        | Two Test Bearing   |                    |  |
|      |        | Test Procedure   | 1 A 2 × 5          |  |
|      |        | Conditioning Load  |                    |  |
|      |        | Bearings shall be pre-loaded with maximum horizontal Load    |                    |  |
|      |        | 2.Fx (with Fz test Held constant ) and unloaded before test  |                    |  |
|      |        | loading.   |                    |  |
|      |        | F <sub>z</sub> .test Corresponding to σ m=5MPa shall be held |                    |  |
|      |        | constant during test and the horizontal loading 2,fx         |                    |  |
|      |        | shall be gradually increased to yield a sher stress rate     |                    |  |
|      |        | of approximately 0.05 to 0.5 MPa per minute.                 |                    |  |
|      |        | Maximum Test Loading   |                    |  |
|      |        | The Horizontal Loading 2.Fx Shall be increased upto          |                    |  |
|      |        | a maximum 2.Fxtest. which corresponds to horizontal          |                    |  |
|      |        | deflection equal to Te.                                      |                    |  |

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ELASTOMERIC BRIDGE BEARING

As per IRC 83 (Part II)2018 and MoRTH Specification

| 2    | 8          | Test for Determination of Compressive Stiffness  |  |
|------|------------|--|--|
| 2    | 0          | The Test shall determine the value of apparent compression Stiffness Ea Under Specified Short                                    |  |
|      |            | term axial loading Test Piece  |  |
|      |            | Two Test Bearing   | A OSANDEYAFLEX   |
|      |            | Test Procedure   |  |
|      |            | Conditioning Load<br>Bearing shall be preloaded upto F <sub>z</sub> .tes' The Load shall be retained for 10 minutes and unloaded |  |
|      |            | upto σ m-2MPa before test loading.   |  |
|      |            | Rate of Loading  |  |
|      |            | The Axial Load F. test is increased gradually at a rate yielding approximately om-   |  |
|      |            | 5MPa per minute.<br>Maximum tes loading  |  |
|      |            | Maximum test loading Maximum test loading shall correspond to F <sub>*</sub> .test-  |  |
|      |            | 5.G.S.A1/1.5   |  |
|      |            | Measurement  |  |
|      |            | Load and deflection measurement for complete bearing shall be made in  |  |
|      |            | approximately equal load intervals not less than 5, deflectin shall be measured at four edges and mean value accounted for .     |  |
|      |            | The test result shall be deemed satisfactory it the value of apparent compression  |  |
|      |            | stiffness determined from the deflection between 30 percent and 100 percent of   |  |
|      |            | the test load is within + 20 percen of the value specified by the manufacturer and   |  |
|      |            | no discemible defect is found by visual examination, The manufacturer should   |  |
| 3    | 9          | spefic th value along with the submittal for acceptance testing programme.<br>Test for Determination of Shear Bond               |  |
| J    | 9          | This Tes shall determine whether requisite adhesion exists   |  |
|      |            | between the elastomer and steel laminates.   | CONSTANT VERTICAL LOAD 4 MPa   |
|      |            | Test Piece   |  |
|      |            |  | CONCRETE SLAB FIXED  |
|      |            | Two identical bearing selected at random from the lot as test  |  |
|      |            | bearing.   |  |
|      |            | Maximum Test Loading: Fztest, Corresponding to a   | DEFLECTED CONCRETE SLAB  |
|      |            | $\sigma$ m=12MPa is to be held constant during the test,If   | //   |
|      |            | necessary the compressive load shall be increased to   |  |
|      |            | prevent slippage but it should ot excedd the mamimum   | CONCRETE SLAB  |
|      |            | test loading as given in 8.3.4 of Horizontal loading   | The second s   |
|      |            | shall be gradually upto a maximum 2F which   | A second se |
|      |            | corresponds to horizontal deflection equal to 2Te.   |  |
|      |            | When the maximum deflection is reached (Shear  |  |
|      |            | strain=2) the deflection shall be maintained for 5min in   |  |
|      |            | order to allow flaws to develop.   |  |
|      |            | Measurment   |  |
|      |            | Load and deflection measurements shall be made at  |  |
|      |            | approximately equal intervals not less than 5.   |  |
|      |            | Evaluation   |  |
|      |            | Examine the Test Bearing for evidence of cracking or   |  |
|      |            | peeling both in the strained and unstrained state. After   |  |
|      |            | temoval of the sheaer force the bearing should be  |  |
|      |            | examined visually, Whilst still under the compressive  |  |
| Addr | ass: 5-24- | 1223/8/1 Ambedkar Nagar Gajularamaram Hydera   | bad - 500055   |

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| load , and anhy bulges which could indicate bond        |  |
|---|--|
| failure should be noted. It may be necessary to cut the |  |
| edge cover to confirm the presence of flaws arising     |  |
| from bond failure.                                      |  |
| If neither of the test bearings rubber and              |  |
| reinforcement layers and there is no sign of bond       |  |
| failure the test shall be deemed to be satisfactory.    |  |
|   |  |





#### Name of Company Or Costumers S. No State Mr.Ajoy Kanoi 1 Assam Jakaosmooth-Ms Rehman Engineering Works 2 Jammu & Kashmir 3 **Shiv Motors** Assam **Rahul Construction** 4 Chhattisgarh 5 Jharkhand **Sildiliya Construction** 6 Chhattisgarh N.C. Nahar 7 Karnataka **B&B Infrastructure Ltd** 8 Chhabra Construction Co. Chhattisgarh 9 Ranchi The Maintenance Management Group **R & L Engineering Services** 10 Telangana 11 Assam **Chandan Deka** 12 Kharsia **Rajesh Kumar Agarwal RAMSHREE GLOBAL CONSTRUCTIONS PVT** Karnataka 13 LTD 14 Jharkhand The Maintenance Management Group JAKAOSMOOTH-MS REHMAN ENGINEERING 15 Jammu & Kashmir 16 Karnataka S.M. Autade Pvt Ltd, Jharkhand **Riddhi Siddhi Enginering** 17 Ashish Infracon Pvt Ltd 18 Gujrat 19 Jharkhand **Mini Construction** Karnataka K.M. Murali Class I Contractor 20 Kalawati Builders 21 Jharkhand Rakesh Kumar & Co 22 Jharkhand 23 Manipur S.N. Babu Singh 24 Tamilnadu Unitech Couplers India (P) Ltd 25 Karnataka K.M. Murali Class I Contractor **Chhattisgarh** SHRI RAM INFRATECH 26

# **Client List of Elastomeric Bridge Bearing**

Address: 5-24-1223/8/1, Ambedkar Nagar, Gajularamaram, Hyderabad – 500055. AN ISO 9001:2015 Certified Company

Contact No: 9652998932

GSTIN: 36GNLPS1299P1ZS

Email : <u>sandhyaprises@gmail.com</u>

Website: www.sandhyaflex.com

WhatsApp: 9652998932

YouTube: www.youtube.com/c/SANDHYAENTERPRISES

Website : http://www.sandhyaflex.com/pvc-water-...



| 27 | Karnataka | Prakasam Heavy Eng. Pvt Ltd                 |
|----|-----------|---|
| 28 | Pune      | Pilane Construction Company,                |
| 29 | ODISHA    | SANDHYA CONSTRUCTION                        |
| 30 | Jharkhand | Dheeraj Krishna Constructions Pvt Ltd       |
| 31 | Jharkhand | Nirmata Engineering Construction Co Pvt Ltd |

| BUSINESS POLICY  |
|--|
| Inquiry  |
| Quotation  |
| Purchase Order   |
| 1. Billing Address. 2. Delivery Address 3. GST No 4. Contact N   |
| Performa Invoice   |
| Address: 5-24-1223/8/1, Ambedkar Nagar, Gajularamaram, Hyderabad – 500055.<br>AN ISO 9001:2015 Certified Company<br>Contact No: 9652998932 |
| GSTIN: 36GNLPS1299P1ZS<br>Email : sandhyaprises@gmail.com  |
| Website: www.sandhyaflex.com<br>WhatsApp: 9652998932<br>YouTube: www.youtube.com/c/SANDHYAENTERPRISES                                      |
| Website : http://www.sandhyaflex.com/pvc-water<br>Request a Quote : https://www.sandhyaflex.com/contactus-1.php                            |



As per IRC 83 (Part II)2018 and MoRTH Specification

# **Advance Payment**

# Take in Production as per Purchase Order

# After Completed Consignment Inform to Client for Balance Payment

Dispatch the Material

Provide LR Copy

| Bank Details |  |  |
|--------------|--|--|
| COMPANY NAME | SANDHYA ENTERPRISES  |  |
| Bank         | HDFC Bank Ltd  |  |
|              | 5-80,HMT Road,Chintal, Jeedimetla,Qutubulapur Mandal Dist. R R |  |
| Branch       | ,Hyderabad-500054 Telangana                                    |  |
| Account No   | 50200016352482   |  |
| IFSC         | HDFC0001041  |  |
| PAN No       | GNLPS1299P   |  |
| GST NO       | 36GNLpPS1299P1ZS   |  |
| IEC          | 0916915042   |  |



| AD Code | 05114228381149 |
|---------|----------------|
| MSME    | TS20B0028147   |
|         |                |