CORI ENGINEERS (P) LTD.

Elastomeric Bridge Bearing Pads

Cori belongs to IGP Group of companies based in Chennai (Madras) India. CORI is ISO 9001:2008 certified organization. Product range of CORI includes Anti Vibration Mounts, Rubber Expansion Joints, Rubber Lining, Rubber Hoses etc.

Elastomeric Bridge Bearing Pads is a block of vulcanized elastomers reinforced internally by one or several steel plates, chemically boded during vulcanization. Elastomer is a macromolecular material that regains its shape and initial dimensions approximately after being submitted to significant deformation under the influence of a low stress variation".

External Forces being supported

Elastomeric bearings permit the simultaneous support of the following loads :

- Absorption of briefly applied external horizontal forces
- Horizontal movement in all directions through shear deformation
- Rotation of the bearing surfaces around all axes
- Standard absorption of vertical loads

Elastomeric bearings are made out of choloroerene polymer. These bearing pads are designed for used in bridges and other structures such as buildings as a vertical load bearing component. There are manufactured from high quality material with number of layers of steel plates depending on the type of bearings highly strong and extremely resistence to weathering, aging with almost no influence from UV radiation and ozone.

Neoprene bearing pads provide a uniform transfer of load from beam to structure. They absorb vibration and prevent noise transfer. While reducing the destructive action of vibration between movable and stationery structural members. They permit beam rotation at the bearing point due to deflection or misalignment. May also provide for movement caused by normal expansion and contraction and concrete creep effects and shrinkage. These pads are used extensively in bridge structures. These pads provide good resistance to traction, excellent failure strain and performs well with dynamic loads. It has good rear resistance excellent resistance to aging and a very low load bearing creep rate. This makes it suitable for the requirements of bearings.

Laminated Elastomeric Bearings

Type A : Single reinforcement Bearing
(Not used in civil Engineering structure)

Type B : The definition for type B according to EN 1337-3 is; this type has (n+1), reinforcement / metal and (n)elastomeric of constant thickness with perimeter at least 4 millimetres thick and the upper and lower faces with a nominal 2.5mm thickness of elastomeric. The tolerance is (-0 and +2).

Other Type B : By definition these are different in that the upper and lower elastomeric coatings are thicker. This type of bearing is no longer straightforward reinforcement protected by elastomeric, but designed on the basis of required ability such as Elastomeric a Half Lamination or Passive Coating types.

Type C : Elastomeric bearings with two external plates and threaded holes for use on metal structures, or as an anti-lift device; in this latter case, suitable anchor bars must be fitted to the bearings for anchoring purposes.

Type D : Elastomeric bearings with external plates and pins that connect to suitable steel plates in order to secure the bearing to the structure.

Type E : Elastomeric bearings with two suitably etched external plates to facilitate the bearing's bonding to the structure by way of vulcanisation.

Type F : Non reinforced or strip bearing (Not used in Civil Engineering Structure)
Sliding Bearings: in cases where there is significant horizontal displacement, in particular on the abutments, the number of laminations required for these deformations risks being incompatible with the buckling stability of the bearing or in the case of a very flexible support. In these cases, sliding bearings may be required instead of ordinary bearings.

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