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Elastomeric Bearings

Description

Our Elastomeric bearings are built to withstand loads and simultaneous deformation in any direction, while also allowing for minor rotations in any of the bearing's axes. These bearings can be made entirely of rubber or can be reinforced with special sheet steel to increase capacity and transversal strength. Bearings can also be produced with special anchor plates or with sliding surfaces to improve the structure's displacement capacity. This kind of bearing can withstand vertical loads of up to 22000 kN.

Advantages

- Transmit the vertical loads due to permanent and accidental effects; it is possible to cover a wide range of loads about up to 22000 kN
- Transmit the horizontal loads with or without elastic response
- Allow rotation as per a spherical hinge
- Capacity of horizontal displacement
- Suitable for all structures steel and concrete bridges and buildings f. High durability and no maintenance

Quality Of Materials

- **AUSTENITIC STEEL SHEET :**The austenitic steel used for sliding surfaces is X5CrNiMo17-12-2 in accordance with EN 10088-2 1.4401 with a minimum thickness of 1.5 mm.
  The roughness is Ry5i ≤ 1 µm
  The hardness ≥ 150 HV1 and ≤ 220 HV1
- **FERROUS MATERIAL FOR POT AND PISTON :**The pot, the piston and if applicable the sliding plate are manufactured from ferrous material in accordance with EN 10025 standard.
- **PTFE :**Elastomeric Bearings uses only virgin PTFE without regenerated or filler materials. The minimum thickness for bonded PTFE is 1.5 mm and varies in according with the bearings size and type. The minimum thickness of recessed PTFE is 4.5 mm and varies in according with the bearings size.

Specification

- **FRICTION OF THE BEARINGS :**The reaction of the bearing to the movement can be mathematically calculated by considering friction coefficient between stainless steel and PTFE to be 0,03. The exact friction coefficient between stainless steel and PTFE is determined in according to EN 1337-2.
- **CORROSION PROTECTION :**Steel components exposed to the elements are protected against corrosion. It adapts the corrosion protection in accordance to the aggressiveness of the environment in which the bearings are to be installed and to each customer's requirements. The standard corrosion protection according EN 1337-9 is as follows: – sandblasting SA2.5 grade – two components high thickness epoxy zinc paint: 250 µm The high resistant corrosion protection (metallization) is as follow: – sandblasting SA 2.5 grade – metal spraying to 85 µm with Zn/Al 85/15 – sealing: Epoxy sealer 20-25 µm – top coat: Polyurethane paint 100 µm
- **DUST PROTECTION :**The dust protection around the sliding plate ensure the cleaning of the sliding surfaces to minimize the friction during sliding and guarantee the durability of the PTFE sliding material.