

LRB (Lead Rubber Bearing) In Base Isolation Project

Shivam Sharma¹, Nishant Tyagi, Rachit Tyagi

Department Of Civil Engineering
SRM University NCR Campus

ABSTRACT

BASE ISOLATION comes under those modern techniques in Earthquake Resistant Design that prevent or divert a major portion of earthquake energy from entering into the main structural system of the structure. This project deals with overall base isolation of buildings by using various bearing or dampers.

INTRODUCTION

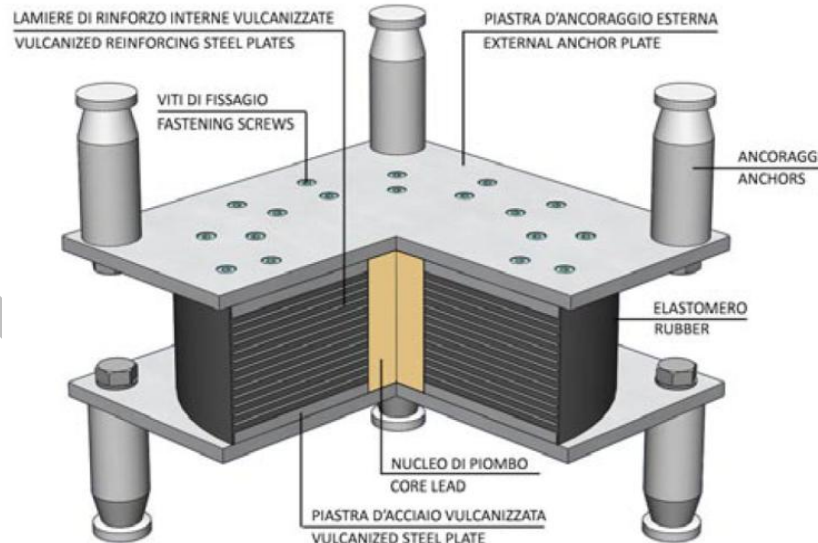
Isolation of an entire structure's motion from the shaking ground below using flexible interface between the structure & its foundation is another powerful technique; called Base Isolation.

PRINCIPLE

Basic Principle of Seismic Base Isolation is to increase the Structure's Natural Time Period leading to decrease its Natural Frequency of Vibration to that of its corresponding fixed based structures.

LRB (lead rubber bearing)

- The spring effect is given by the rubber elasticity (elastic energy storage).
- The energy dissipation is given by the yield of the lead core



CONCLUSION

- Seismic isolation is the most effective system to protect a structure from the earthquake
- Sliding pendulum isolators are the most efficient and the most cost/performance effective
- Retrofitting by base isolation has a very low impact on the activity performed inside the building and may be performed also without stopping it

REFERANCE

1. Resist flex dynamics pvt.ltd,sec-5,Noida.

IJARETS