

Glass Melting Plant (Costa Rica)



Project description

The glass melting plant is located in Cartago, Costa Rica, and is one of the most significant glass melting furnaces in Central America.

Costa Rica is located in one of the most active areas in terms of earthquakes since it is surrounded by the boundaries of four tectonic plates.

In order to protect the melting furnace against earthquakes, its structure has been redesigned to consider the installation of seismic isolators at the base of the furnace. These devices will prevent seismic damage and hence avoid service interruption.

mageba scope

The solution chosen by the structural designer is based on the installation of 28 mageba LASTO®LRB (lead rubber bearing isolators) which support the furnace in order to isolate movements generated by earthquakes.

This project considers seismic isolators of 400 mm of diameter, with maximum displacement of 60 mm and vertical load capacity of up to 1,100 kN.

This bearing consists of internal layers of elastomeric material and vulcanized reinforcement steel plates, but features a lead core. The lead core deforms plastically under shear deformations while dissipating energy through heat.

Highlights & facts

mageba products:

Type: LASTO®LRB seismic isolators
Installation: 2016

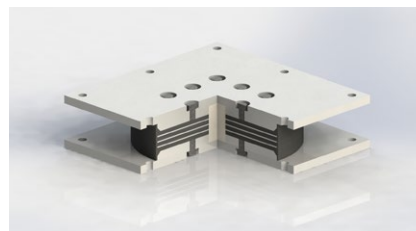
Structure:

City: Cartago
Country: Costa Rica
Completed: 2016
Owner: Vidriera Centroamericana S.A. (Vicesa)
Contractor: Hulera Costarricense Ltda

The glass melting plant is located in Cartago, the capital of Cartago province in Costa Rica



Illustration of one the isolators that will support the furnace



The lead rubber bearing isolator LASTO®LRB ready for installation

