



**Polybutene**  
Piping Systems Association

## Case Study

Falabella Retail Store, CO



Thermaflex | Flexalen



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## Falabella, CO

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Considered a symbol in its economic transformation, Colombia's sprawling, elevated capital of Bogotá is a highly dynamic economic hotbed today. With its rapidly growing consumer market, Bogotá has grown as one of the most competitive commercial centers in Latin America. As an important player in the Latin American retail business, Falabella sought to set an example in this booming market with the construction of its new store. The aim: minimize the use of resources for maximum benefit. PBPSA member Thermaflex rose to the challenge.



### Luxury shopping at moderate cost

The Falabella department store was built in the latest segment of the Titán Plaza – one of the biggest and most attractive shopping centers in Bogotá. Its numerous retail and lifestyle stores, and a number of food courts make it a hotspot in the bustling city. As part of the expansion and renovation plans of the Chilean retail chain, the Falabella project connected the new store with the energy facilities within the shopping center.

A vital element in this objective was to access the building's chilled water system. Considering Bogotá's hot and humid climate, an efficient and sustainable solution was vitally important.

## Falabella, CO

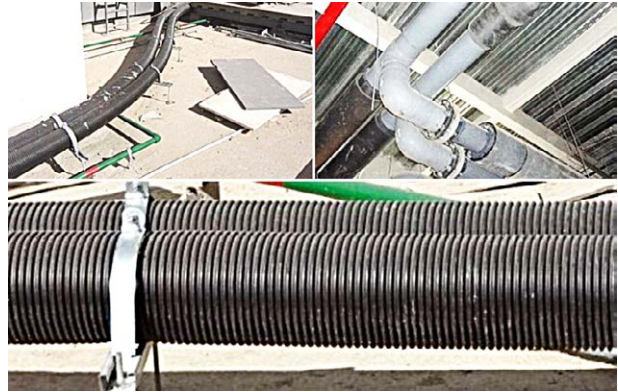
### Details

This pioneering project covered a considerable network of users, including a multitude of shops, restaurants, supermarkets and offices.

In order to realize an optimal solution to maximize the benefit for all connected parties, a chilled water system was co-created to secure a high level of comfort level while minimizing the use of energy.

The system was created using 1,700m of Flexalen pre-insulated Polybutene (PB-1) pipes with diameters ranging from 3/4" (19mm) to 6" (152mm) to accommodate the capacity produced by 900 tons of refrigeration equipment.

Starting in March 2012, both design and implementation of the system was finalized and in operation by October that same year.



### Goals

The Titán Plaza mall strives to deliver an ultimate shopping experience for its many visitors. Importantly, that includes a high level of thermal comfort.

For the expansion of the plaza, an efficient and reliable chilled water system was needed to operate reliably, securing an optimal level of comfort, while maximizing energy savings. Additionally, the need for maintenance was to be sustainably kept to a minimum.

### Results

The entire design, development and installation of both the pre-insulated pipe system and the technical insulation for the chilled water system could be quickly and efficiently realized with the support of the Thermaflex Latin American team.

The solution, co-created together with the owners of the Falabella store, ensures an optimal performance at the highest comfort level. The remarkably low energy use by its numerous users is an indication of the energy efficiency of the system. In addition, the count of maintenance issues is still at 0, preventing any related (and costly) downtime for the busy commercial center.

### Statistics

- **5,000 m<sup>2</sup> of cooled area**
- **1,700 m of PB-1 pipes for..**
- **900 tons of refrigeration**
- **Project duration: 1 year**



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