

IIT Bhilai Chhattisgarh



Bhilai is well known as the Steel City of Central India and a key education hub of Chhattisgarh.

The campus of IIT Bhilai is designed to be a **smart eco-campus and emphasizes sustainability and environmental sensitivity** at all levels. Its pattern is driven by stewarding natural resources and based on renewable energy. This campus is designed to function 24x7, for all 365 days of the year.

The campus is designed in such a manner to respect the natural features of the allotted space by retaining most of the existing trees and **ponds**. The campus had adopted Energy efficient system by installing roof solar panel and 100% led lights. Sustainable Water & Waste Management is being designed on the campus with Zero water discharge and reuse of treated waste water for flushing, horticulture and air conditioning (cooling system) which will result in a very little water demand from external sources. The academic buildings are clustered around a walkable core, which includes inter-connected formal and informal interaction spaces. Campus buildings are planned and designed in horizontal expansion to cause least disturbance to the existing

Firestone lining system was installed for waterproofing the whole pond spread over an area of 12000 sqm. It includes dredging, placing plastic waterproofing membrane in the bed, a silt chamber to prevent rainwater sludge flowing into the lake.

Larson & Turbo Construction, an authorized firestone contractor experienced in lining applications, was chosen to carry out this installation. Firestone podium lining offers a very robust lining system. The membrane comes in several sizes that can go up to very large sheets (930 m²). For this project large membranes were used to make the installation a lot easier and reduce the installation time. Firestone EPDM also offers high durability under

Quick Facts

Project scope:

- ❖ IT Bhilai's fully sustainable and energy efficient water-front campus
- ❖ 12000 sqm of **Pond lining** carried out with 1.1 mm Firestone EPDM
- ❖ High visibility and prestigious project
- ❖ To deliver an excellent waterproofing to preserve water for seeping into the grounds
- ❖ **Client:** CPWD
- ❖ **Architect:** Shaheer Associates
- ❖ **General Contractor:** L&T

Challenges faced

- ❖ Rain caused delay in completion

Features of EPDM:

- ❖ Waterproofing membrane High elasticity (>300%)
- ❖ Long-term durability
- ❖ Large sheets reducing on site seaming (930 m²)
- ❖ Fast and easy installation
- ❖ High flexibility (at high and low temperatures, as a result adapts to irregular shapes)
- ❖ High puncture resistance

fully exposed conditions. Rocks used for ballasting won't puncture the membrane. The elongation properties help the membrane to accommodate differential soil settlements. Waterfalls, islands, even pipe penetrations are no problem for the Firestone EPDM. Firestone offers a complete range of waterproofing solutions.

DBS (authorized Firestone distributor) provided a continuous support in ordering all materials as well as coordinating the installation of the lining system. The result of this excellent collaboration is an artificial pond that meets all expected standards.



For further information about waterproofing applications, please contact: DBS Building Products Sri Sobha Sing Building, 5286-87, Shardhanand Marg Delhi-110006 Tel: 011-66308888/23216062 Email: sales@dbsbp.com/Info@dbsbp.com