

A case study of construction work in Ahmadabad, India

GCP Y 100

as an economic and sustainable way to
build diaphragm walls

CHEMISTRY FOR A SUSTAINABLE FUTURE



PLANET



PEOPLE



SOCIETY

Currently, it is increasingly common to hear discussions about sustainability in the construction industry and about environmental management, tools for this sector. The concept of sustainability extends beyond practices related to the preservation of natural resources; it also comprises several different areas such as sociology, economics, politics, ecology, culture, and environment, to name just a few. The polymer GCP Y 100 supplied to a major construction project in west part of India via our Delhi channel partner. This paper is a case study of a construction work in the city of Ahmadabad, India where a polymer slurry was used instead of a bentonite-based one as stabilizing fluid for excavation work on diaphragm walls. Based on the evaluation of the data obtained in the cited case study, it was possible to conclude that the use of polymer slurry in the excavation of diaphragm walls is technically and economically feasible, besides presenting several environmental advantages in comparison to the use of bentonite slurry.

Abstract

The Site

The studied construction site is a terminal building with 6 floors located at Ahmedabad, India

To create the contention with a diaphragm wall, it was necessary to excavate 3,344.27 m³ of soil, equivalent to approximately 4,682.98 tons.

The diaphragm wall has thickness of 0.4 m, depth of 15 m deep, and surface area of 8,360 m².



Conclusion For GCP Y 100



