

# Tapume

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## Novo Contrato: Stihl Centro de Logística



Perspectiva do empreendimento

**TRANSLATION FROM THE PORTUGUESE ORIGINAL**



# Prysmian is the first work in Brazil to use innovative concrete technology

In the expansion of the Prysmian plant it was used an innovative technology, a non-reinforced Concrete Floor, developed and patented by the Portuguese company **Scientific Pavement World Systems**. This new technology can be referred to as 'foundation slab' or 'semi-continuous concrete'. Its use has several benefits, such as the high velocity in the execution of the system, requiring only that the soil is leveled and compacted according to the project specification; The cost is relatively lower compared to the solution of reinforced concrete floor for the same load; as well as there is no need for a concrete frame, an

important item given the long delivery times of steel and welded fabric.

HOCHTIEF Brazil decided to implement the new technology after a period of studies with the partner and designer Fausto Favale. "We realized that the solution was technically feasible and would offer a good quality to our customer's needs, mainly due to the long-term supply of wire mesh, which would make the deadlines unfeasible," explains Ricardo Teixeira, contract manager for this unit..

## What is Concrete Flooring?

The concrete floor is one of the vital structures of a work. It is usually found in industries, warehouses, loading and unloading yards, roads, airports, among others.

When applied, the concrete must maintain its consistency, have low absorption capacity, high wear resistance / heavy traffic, low cracking rate and a suitable hardening time. All these features allow better finishing and greater durability for floors.

Within the universe of concrete floors, one of the most used is the so-called reinforced concrete floor. They are structures constituted by concrete slabs, reinforcement in welded screens, transfer bars and a base usually made of crushed stone and cement. Some of its benefits include crack control, slabs with a length of up to 30 meters, reduced number of expansion / retraction joints, higher flatness and safety, greater durability and lower thickness, overall cost and braking distance. Nowadays, a new technology that is being used is the Semi-Continuous concrete, which consists of the placing

on the concrete slabs, modeled on site and interconnected by hinges, the "**Load Transfer Plates**".

This mechanical device ensures leveling of both sides of the joints, with an effective transfer of the loads between them and ensuring their continuity. "For the technical solution adopted at Prysmian, a concrete mix was defined jointly with the consultant and designer, with fck equal to 4.5Mpa and active silica addition, which provided advantages of resistance, permeability and applicability, The addition of active silica also increased the surface resistance of the concrete, so it does not need to harden the surface," explains Roberto Hashimoto, contract manager, who participated in the project..

Load Transfer Plates both assist in the installation of retraction or expansion joints, as well as avoid differential seating along the joint edges. The plates, placed in quincunx on one side and the other on the axis of future joints of the pavement, ensure the transfer of at least 20% of the load of one slab over the other.

## Agenda de Eventos Técnicos

Mai/Junho 2012

Por Fátima Idogava

Data	Evento	Local	Contato
29/5 a 02/06/12	M&T EXPO 2012 – Feira de equipamentos para Construção e Mineração	São Paulo/SP	www.mtexpo.com.br
30/5 a 01/06/12	Sobratema Congresso 2012	São Paulo/SP	
	www.sobratemacongresso.com.br 26/06/12	Patologias Precoces de Obra	São Paulo/SP
	www.pinieventos.com.br		
26 a 28/06/12	Congresso Brasileiro de Aço	São Paulo/SP	www.expoaco.org.br