

Soap bubble testing for liquid tight certification of the forecourt

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Door een luchtdruksysteem aan te brengen onder de vloeistofdichte vloeren op de tankstations, kunnen deze met behulp

van zeepsop getest worden op vloeistofdichtheid.

Summary of the project:

Originally, visual inspection was the only means to assess whether pavements lived up to its demands. Through a new technique, the assessment of liquid tight paving can be carried out more objectively than the traditional visual technique, as it involves a method of objective measuring, rather than interpretation. With this system, through drilling small concrete cores in non-loaded places in the floor, both the place for administering the test system, as well as a check on the material cores is achieved. On these drilled holes, a permanent test system is installed for repetitive use over the years. Air pressure is administered under the entire floor after inundating the floor with a water/ soap mixture (environmentally safe). When air pressure is applied, any leaks in the concrete, the kit and around the product piping are noticeable through small air bubbles. This method is applicable on the forecourt and on the carwash floor, as well as on refineries, terminals and exploration facilities. The method has been certified and can result in the required legal approval and certification for the floor after repairs have been carried out.

Benefits of this system:

- Significantly lower repair costs because of focussed repairs.
- Re-producible research because of objectivity of measurement.
- Reduction in maintenance budget and higher certainty in predicting the total maintenance costs.
- Open tendering in the market will lead to competitive prices and significant cost reductions.
- Database registration of the quality and performance of the liquid tight pavements in the network, this can work as a management tool, and help focus policy.

