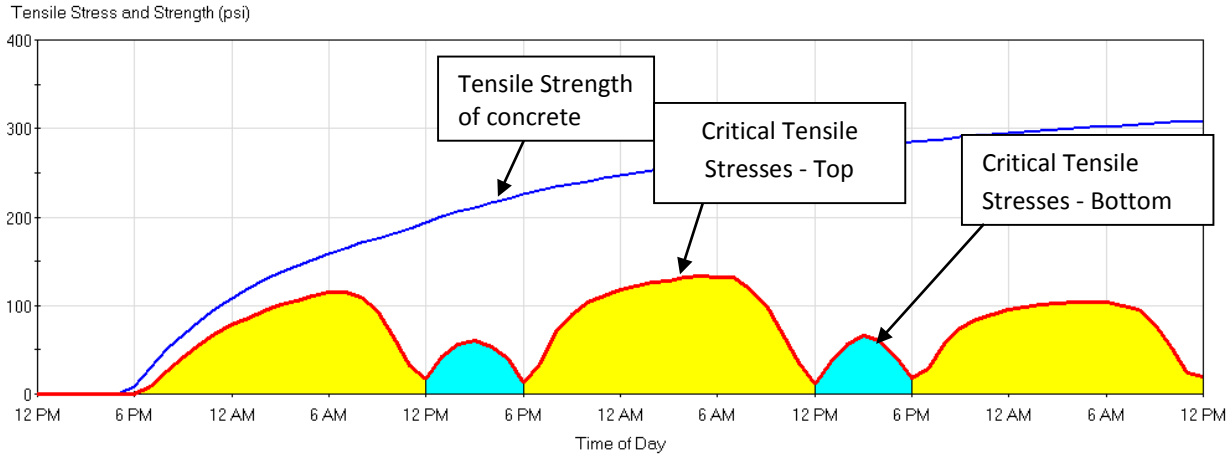
HIPERPAV III

HIPERPAV® (HIgh PERformance Concrete PAVing) is a user-friendly, Windows based software designed to assess the influence of pavement design, concrete mix design, construction methods and environmental conditions on the early-age behavior of jointed concrete pavements, continuously reinforced concrete pavements, and bonded concrete overlays.

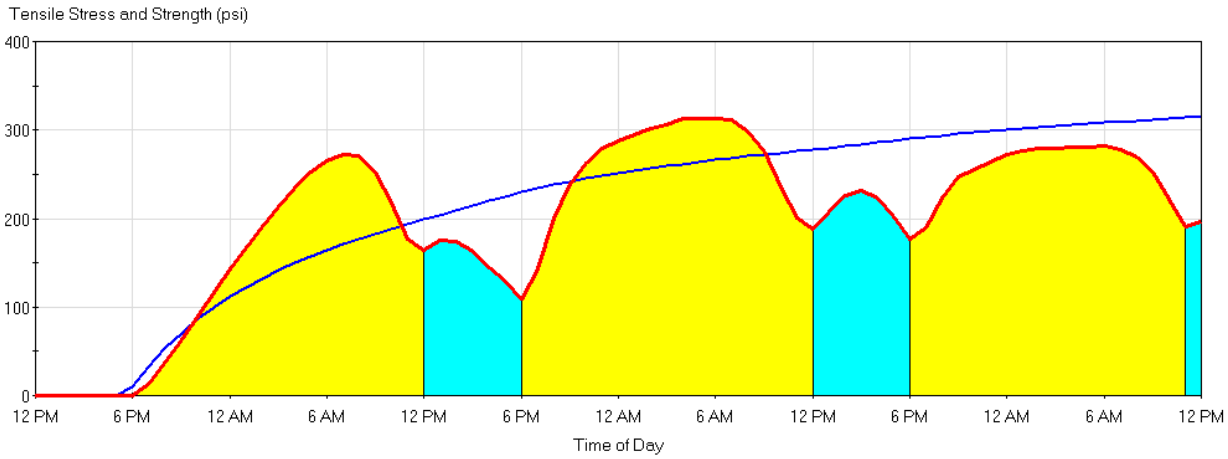
HIPERPAV is used by planners, designers, contractors and suppliers for a variety of purposes. During the planning stage, HIPERPAV can be used to develop quality control specifications based on the available materials and local climatic conditions. Pavement designers use HIPERPAV to optimize the design variables and guarantee long-term performance while maximizing economy. Contractors use HIPERPAV to prevent expensive repairs by predicting potential damage and determining how to prevent it. With HIPERPAV, suppliers manage the temperature of the concrete based on their mix designs and specific climate and project conditions. Several states such as California, Wisconsin, Ohio and Delaware have included the use of software in their specifications.

Figures below show the two scenarios of HIPERPAV output. The solid blue line noted on the graphs below indicates tensile strength development of concrete in the first 72 hours after placement. The lighter yellow area indicates the critical tensile stress development at the top of slab and lighter blue area represents critical tensile stress development at bottom of slab during the same time period. If the tensile stresses exceed the tensile strength of concrete, cracks could be expected.

HIPERPAV III software is free and can be downloaded at www.hiperpav.com.



HIPERPAV Output Scenario 1: Tensile Stresses in the Pavement were less then the Tensile Stregnth of Concrete (No early age cracking is NOT expected)



HIPERPAV Output Scenario 2: Tensile Stresses in the Pavement exceed the the Tensile Stregnth of Concrete (Early age cracking is expected)

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