SCRIM
- Measurement of adhesion -

The SCRIM® (Sideway force Coefficient Routine Investigation Machine) helps to measure the pavement adhesion.

This equipment meets the NF P 98-220-3, NF P 98-220-4 and NF EN ISO 13473-1 standards as well as the IFSTTAR test no. 50 method. It also meets. The SCRIM also responds the "XP CEN/TS 1

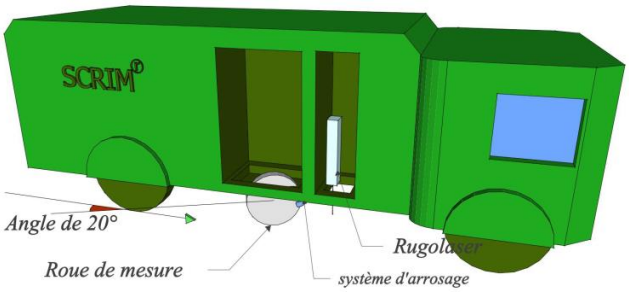
Overview

SCRIM® continuously measures the TFC (Transversal Friction Coefficient) and ETD (Equivalent Texture Depth). These readings are conducted simultaneously.

The SCRIM® is used on structuring networks (freeways, RN, RD) and airport runways. This device meets the needs of managers in the fields of:

- Safety
- Help with work-programming and maintenance,
- Acceptance of bearing layer.

Additional features can be added as for example the capture of environmental images.



Measurement principle of the microtexture (TFC)

The SCRIM ® measurement wheel is equipped with a standard special tire which makes an oversteer angle of 20° with the direction of the vehicle.

This wheel's axis is equipped with a force sensor system enabling the evaluation of the tire-pavement transversal reaction "N".

The vertical load "P" (load imposed on the ground assumed to be constant) and measurement of the effort supported by the measurement wheel hub allow to deduct this reaction "N".

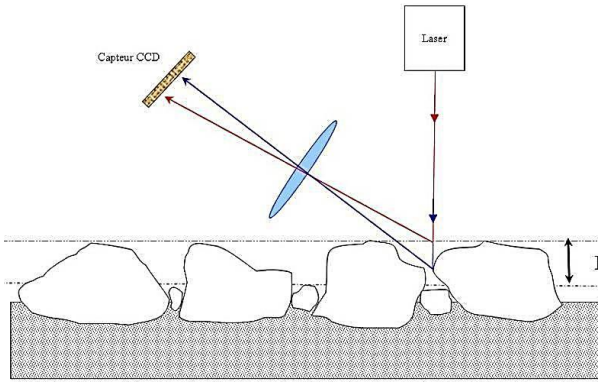
The TFC which is proportional to the N to P ratio, is so calculated, displayed by the acquisition chain, and stored in real time on the SCRIM® CPU.
This measurement is made on wet ground which explains the presence of a sprinkler system in front of the measuring wheel.

Implementation of the measurement

The measurement is carried out at a constant speed of 60 km/h (37.3 mi/h).

For dampening, an internal 7,000 liter (1,850 gal/h) tank, allows controlling the irrigation under the measurement wheel as well as a significant operating range of about 150 km (93 mi).

The results are expressed in TFC, APD or ETD.



Measurement principle of the macrotexture (APD)

Measurement principle of the macrotexture (TFC)

The laser allowing measurement of the Average Profile Depth (APD) according to the profile measurement method is arranged in front of the wheel, on the edge side.

It therefore raises the APD in the same track as the measurement wheel, on a dry surface.

The Equivalent Texture Depth (ETD) is then derived by application of a simple relationship.