# SCRIM ® : MEASUREMENT OF ROAD FRICTION

## SCRIM® continuously measures the SFFC (Sideway Force Friction Coefficient) in continuous and ETD (Equivalent Texture Depth)

Vectra

NF P 98-220-3
NF P 98-220-4
ISO 13473-1

## Description

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

European standards
Normes européennes
Made in France
Fabriqué en France

## 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 store in real time on the SCRIM® CPU.
This measurement is made on wet ground with an adjustable automatic watering system in front of the measuring wheel.

## Highlights

**Durability**
→ The only WDM SCRIM approved integration

**Productivity**
→ Acquisition system designed for productivity and ease of use

**Customized equipment**
→ Tailor-made water tank and vehicle body with racks and cabinets for spare parts, wheels and accessories

## Implementation of the measurement

The measurement is carried out at a constant speed of 60 km/h (37.3 mi/h). For generally watering, an internal 8,000 liter (2110 gal/h) tank, allows controlling a constant water thickness on the road pavement before measurement wheel as well as a significant operating range of about 150 km (93 mi).
The results are expressed in SFFC, MPD or ETD.


## Conditions and limits of use

The laser allowing measurement of the Mean Profile Depth (MPD) 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.