Profiling and digital imaging

Pave®Prof V2.0

PaveTesting®
For All Your Pavement Testing Needs

For all your pavement testing needs

Design

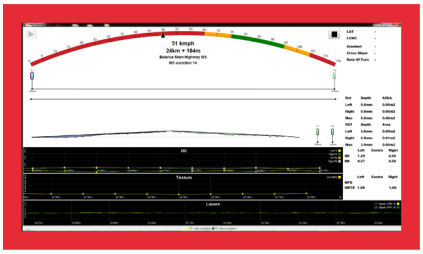
Overview

Pave®Prof is a modular system that uses 3D laser sensors to measure pavement profiles for applications such as highways and runways. It measures surface roughness, texture and rutting at highways speeds and to international standards.

The design consists of modular components and software - from a single laser and accelerometer system (for single wheel path measurements) to the complete system consisting of up to 21 fully integrated lasers (for full transverse highway measurement).

It is capable of real-time continuous measurements of longitudinal and transverse profile, rut depth and macro texture. These values can be used to calculate ride comfort, surface friction and surface noise generation to international standards.

The inherent flexibility, accuracy and reliability of Pave®Prof helps to deliver improved highway and runway surfaces and reduces the risk of accidents which can result from poor surface conditions.



For all your pavement testing needs

Benefits

The PAVE®Prof range of profilometers enables true ASTM Class 1 profiling of road surfaces at all collection speeds. Results are displayed visually in real time on a user-friendly interface which displays RN, IRI, MPD and SMPT calculations in real time. GPS and Gyro integration is also available as an option, to record and display the vehicle's coordinates and geometry.

To ensure texture profiles are all captured accurately, each laser has a high speed of up to 110kHz, the vehicle's speed is measured by a DMI encoder on the vehicle and built-in accelerometers compensate for suspension movement. For full transverse highway measuring, oblique sensors are available which have a 1,000mm measuring range giving measured road width up to 3.5 metres.

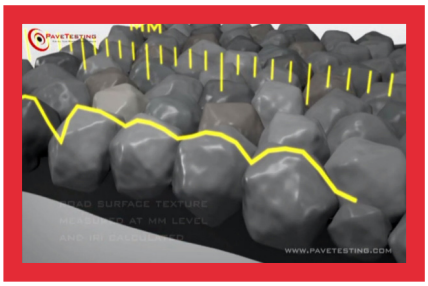
The control system is tested with speeds between 7km/h and 115km/h (70mph). Portable and lightweight options are available and the system can be combined with video surface imaging to record and measure cracks in the road surface.

Applications

The system is typically used in both the initial construction and also in monitoring and maintenance of pavements to calculate ride comfort, surface friction and noise generation. Applications include:

New pavements – Pave®Rough measures new road surfaces to establish ride quality and surface smoothness. RN and IRI values can be measured quickly and easily to ensure consistent standards of construction and pavement quality levels.

Existing pavements - installed on a highway vehicle capable of measuring at speeds of up to 115kmph (70mph), the system helps to identify any remedial action that may be required without disrupting the traffic flow or closing the highway.



Standards

Pave®Prof records and measures in accordance with: International Roughness Index (IRI); Profilograph Index (PI); Ride Quality Index (RQI); Half Car Ride Index (HRI); Ride Number (RN); Longitudinal Profile; MPD; SMPD and STD (Volumetric Measurement).

Equipment is designed to meet or exceed the following ASTM standards:

- **ASTM E-950 -** Measuring the Longitudinal Profile of Traveled Surfaces with an Accelerometer Established Inertial Profiling
- **ASTM E-1926 -** Computing International Roughness Index of Roads from Longitudinal Profile Measurements
- **ASTM-1845 -** Calculating Pavement Macrotexture Mean Profile Depth
- **ASTM-1489 -** Standard Practice for Computing Ride Number of Roads from Longitudinal Profile Measurements Made by an Inertial Profile Measuring Device
- **ASTM-1703 -** Measuring Rut-Depth of Pavement Surfaces Using a Straight Edge

Our Facilities

Credentials

PaveTesting® Limited has been at the forefront of developing new technologies for over 10 years. Based in the UK, we design and manufacture pavement testing equipment to meet the safety standard requirements of regulators and the commercial requirements of paved surface operators worldwide.

PaveTesting® Academy

The PaveTesting® Academy offers on-site, multi-language training, conducted by our team of highly qualified engineers and technicians.

Courses include practical training on how to use equipment and software as well as relevant local testing standards. We also offer service and maintenance training to ensure optimum performance and reliability.

PaveTesting® have a team of technically trained, skilled staff always on hand to offer aftersales service and support - as and when you need it.

Simply call 01462 681 699 today to find out more the range of training courses available.

PaveTesting®

Capabilities

Surface Friction Tester
Pave®CFT

Falling Weight Deflectometer
Pave®FWD
Pave®HWD
Pave®SHWD
Pave®LWD

Surface Profilometer
Pave®Prof

Accelerated Pavement Tester
Pave®MLS

Pavement Imaging
Pave®CAM

Contact

Telephone:
+44(0) 1462 681 699

Email:
sales@pavetesting.com

Website:
www.pavetesting.com

Address:
PaveTesting® Ltd. Head Office
Unit 2, Iceni Court
Letchworth Garden City
Hertfordshire, SG6 1TN
United Kingdom

Distributor:

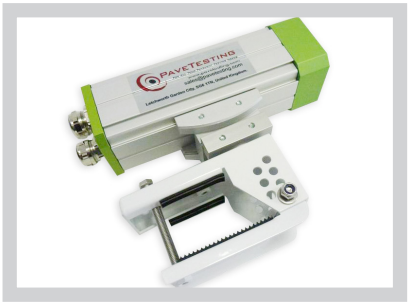
Product Range

Pave®Rough, Highway Roughness Measuring

For measuring new roads, a single or dual laser is installed on a vehicle. The most cost effective solution on the market for the measurement of IRI and profiles at highway speeds, enabling faster measurement without the need to close highways or disrupt traffic flow.

Pave®Tex, High Speed Profilometer

This uses the high speed 110kHz laser for increased resolution required when measuring Macro and MicroTexture at highway speeds



Pave®Rut, Highway Rut Measuring

If transverse highway data is required, Pave®Rut is designed for wheel path rut measurement. Using the extra long range of the oblique laser, increasing the number of lasers from 7 up to 40 gives higher transverse resolution.

Pave®Geo, Highway Geometry Measuring

PaveGeo sensors measure gradient, cross slopes and radius of curvature.

Surface and Right of Way Imaging

3D cameras that capture both high-resolution images and transverse profiles for right of way and surfaces.

Pave®LRMS

Utilising Line Laser technology, transverse profiles up to 1,280 points can be measured at full highway speeds.

PaveTesting Range

Pave®CFT

Pave®FWD

Pave®MLS