

**New performance test
for asphalt pavements.**

ZORN AT 2.0

Asphalt Tester

Modified Light Weight Deflectometer

Calibrated following TP BF-StB Teil B 8.4 (Germany)



DETAILS

- New Design
Practical, robust
- Loading mechanism
with 15 kg drop weight
- Test plunger 50 mm
(diameter)
- Temperature range
Asphalt surface $\leq 60^{\circ}\text{C}$

1

- Specially developed dynamic stamp indentation test for freshly laid asphalt
- Modified Light Weight Deflectometer with 15 kg loading mechanism

2

- Testing the elastic deformation of freshly laid asphalt, by a 50 mm test plunger pressed dynamically and vertically against the surface.
- Applicable in a temperature range of $\leq 60^{\circ}\text{C}$
- Calibrated impact force of 9,42 kN/m²

The test device simulates moving traffic and allows the deformation resistance of the asphalt layers to be assessed. The deformation of the asphalt is determined via the plunger movement. The acceleration sensor provides precise data on the settlement and speed of the plunger. The respective values flow into the calculation of the characteristic value A_{vf} in percent. The ZORN AT 2.0 performs this calculation automatically for each test point.

3

- Modified Light Weight Deflectometer
- For release tests according to "Supplementary notes on opening asphalt pavements to traffic" (H VVA), FGSV Germany, edition 2022
- Test plunger (non-bevelled, flat surface, diameter 50 ± 0.1 mm)
- Loading mechanism with 15 kg drop weight
- Max. impact force 9,42 kN, impact duration $17 \pm 1,5$ ms
- MEMS acceleration sensor for precise deflection measurements
- Temperature sensor for monitoring the asphalt surface temperature
- Temperature range asphalt surface $\leq 60^\circ$ C
- Robust outdoor tablet computer 8" with ZORN H VVA App for wireless device control, automated data collection and calculation of release coefficient A_{vf} , production of complete protocols according to H VVA
- Two integrated, temperature resistant wheels for comfortable transport and moving the device between measurement positions.
- Transport case
- Expandable with asphalt modulus measurement kit for determination modulus measurement $E_{vd \text{ Asphalt}}$ (ZORN INSTRUMENTS 2010)

An asphalt surface is considered safe to drive on when all specified test points have reached $A_{vf} = 100$ %. The test method is suitable for binder and base courses in asphalt paving.



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