

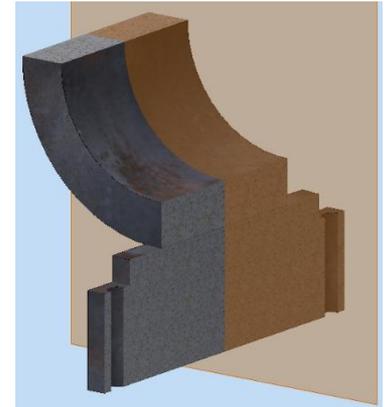
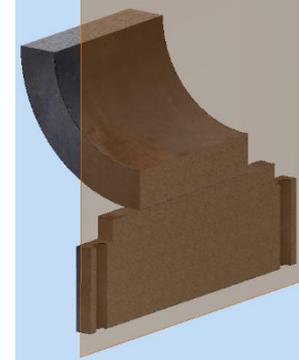


infraTest®
TESTING SYSTEMS

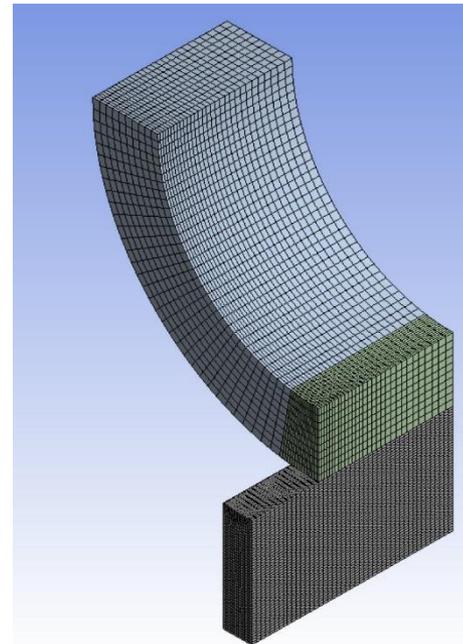




Asphalt Mixture Performance Test System



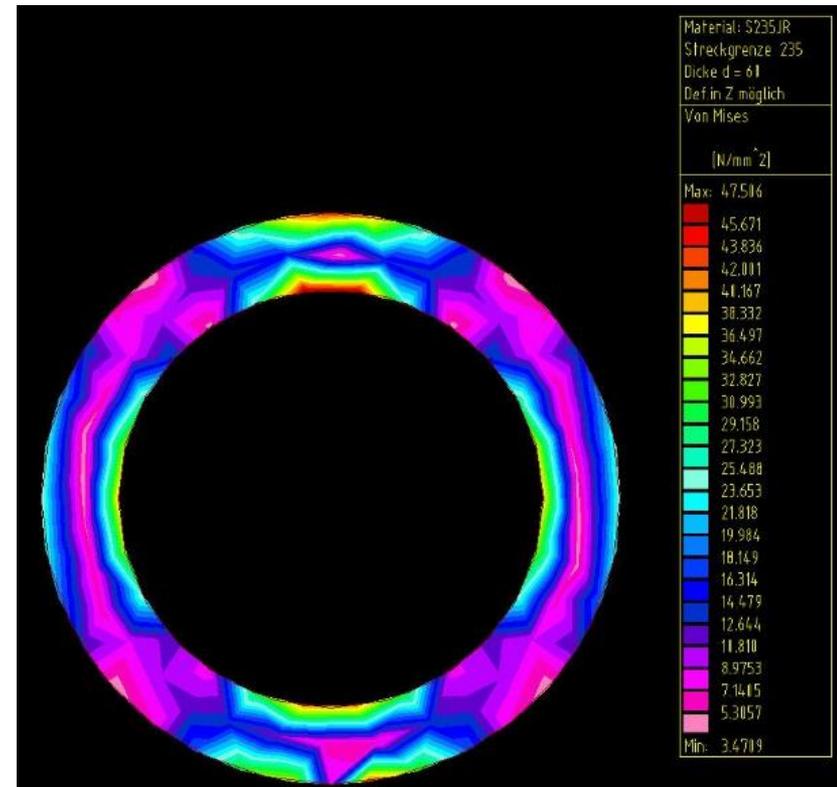
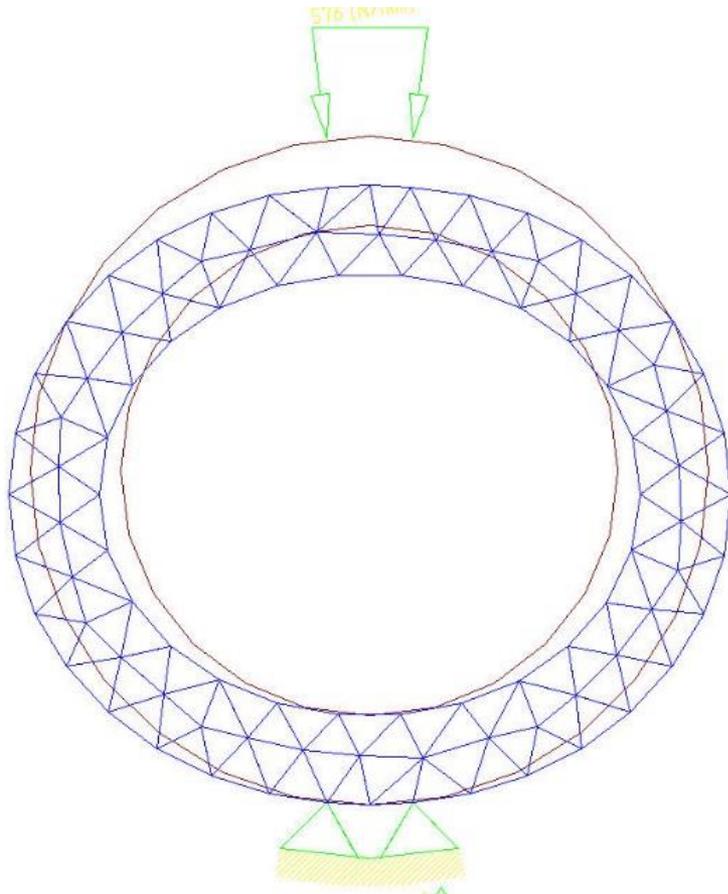
FEM 3-D-Calculation With known E-Modulus





Finite-Elements-Calculation

2-D-for stress design test of UTM 100

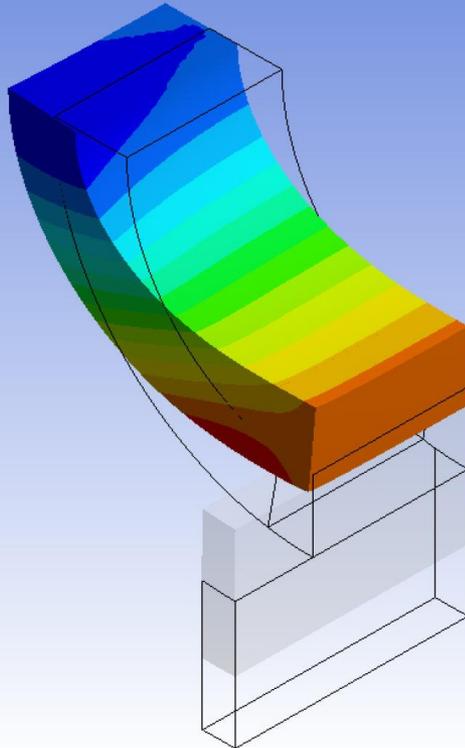




FEM 3-D-Calculation / Directional Deformation

D: Pruefring (Vers 2) Static Structural (ANSYS)
 Figure (4500-fach skalierte Darstellung)
 Type: Directional Deformation (X Axis)
 Unit: μm
 Global Coordinate System
 Time: 2

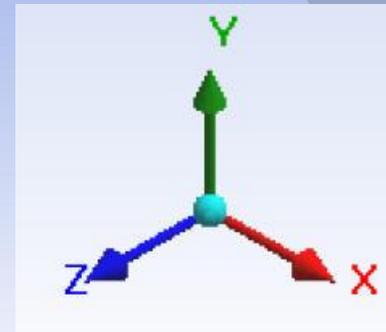
0.27152 Max
 0.10219
 -0.067132
 -0.23646
 -0.40578
 -0.5751
 -0.74443
 -0.91375
 -1.0831
 -1.2524
 -1.4217
 -1.591
 -1.7604
 -1.9297
 -2.099 Min

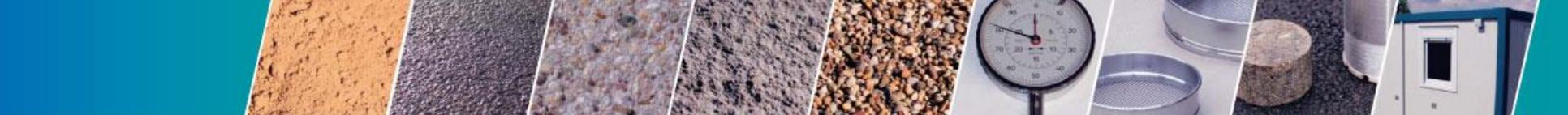


D: Pruefring (Vers 2) Static Structural (ANSYS)
 Figure (4500-fach skalierte Darstellung)
 Type: Directional Deformation (X Axis)
 Unit: μm
 Global Coordinate System
 Time: 2

-1.9068 Max
 -1.9185
 -1.9303
 -1.942
 -1.9538
 -1.9655
 -1.9773
 -1.989
 -2.0008
 -2.0125
 -2.0243
 -2.036
 -2.0478
 -2.0595
 -2.0713 Min

Max
 Min





InfraTest Modular Systems Technology

4. Hydraulic System

Load 1: 5 kN and 10 kN

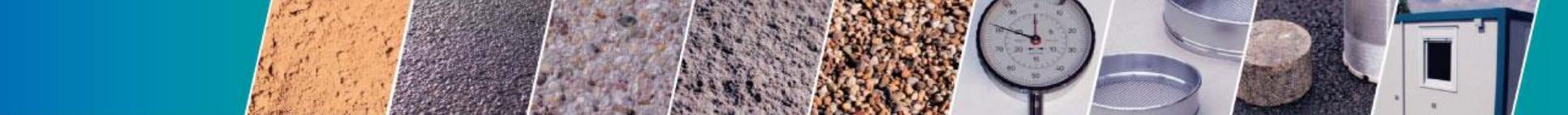
Load 2 : 30 kN

Load 3 : 50 kN

Load 4 : 63.5 kN

Load 5: 100 kN

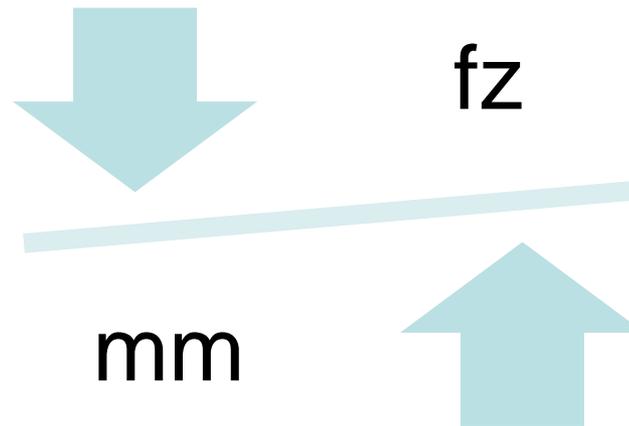


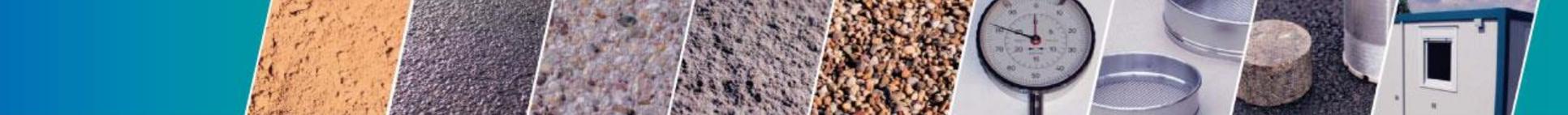


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4. Hydraulic System

Frequency-Stroke
dependency
curves





InfraTest Modular Systems Technology

4. Hydraulic System

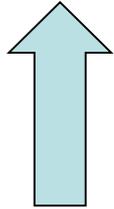
Frequency-Stroke
dependency
curves

For non-sinus tests
(haversine)
Higher fz are possible



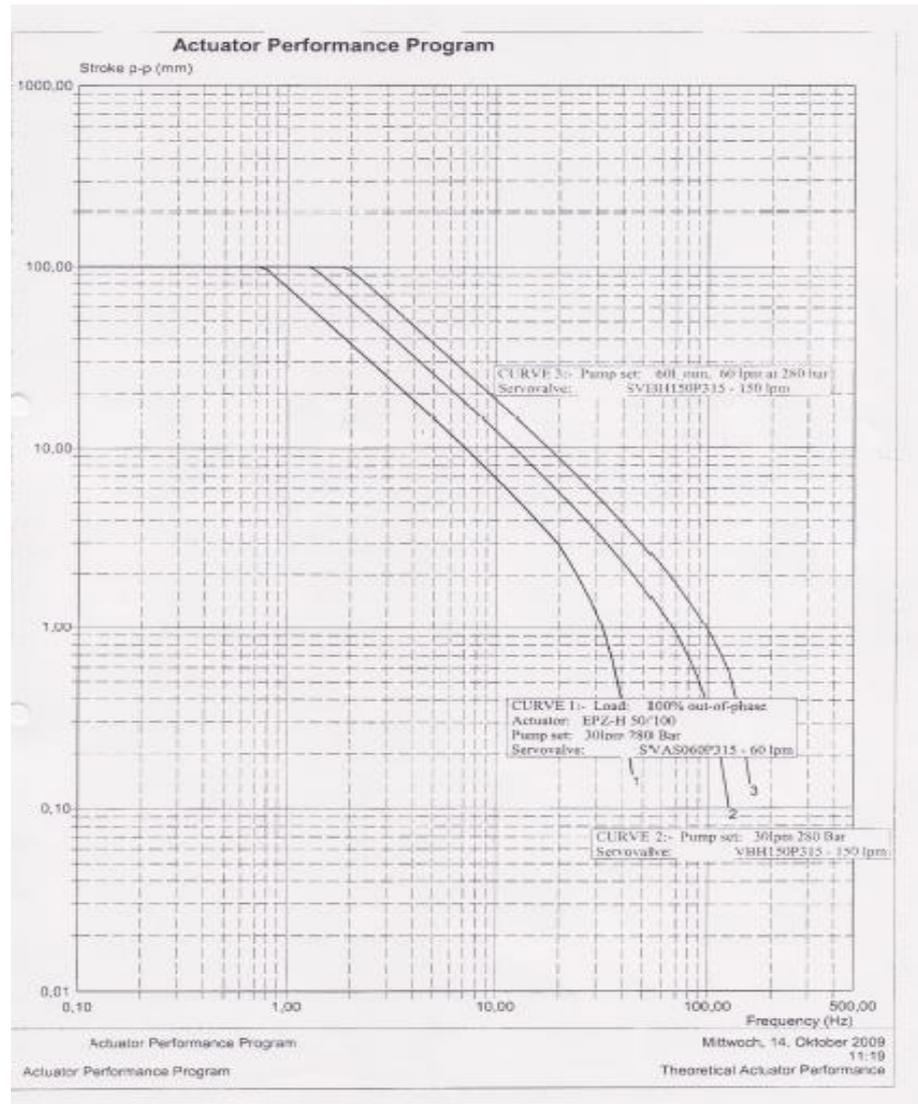
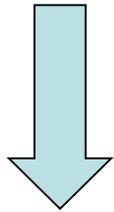


Frequency up



Means

Stroke down





Unit 1: 53 Liter





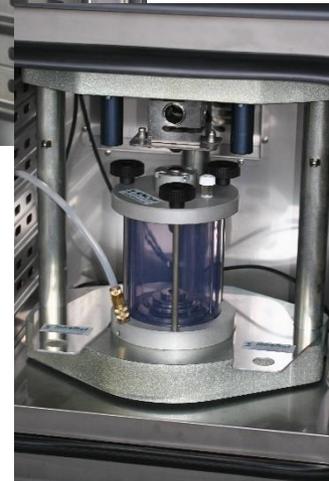
Testing frames:



Indirect Tensile Test



3-Point Bending Test



Triaxial-Test-Cell





DIN EN 12697-25 – A1 and A2

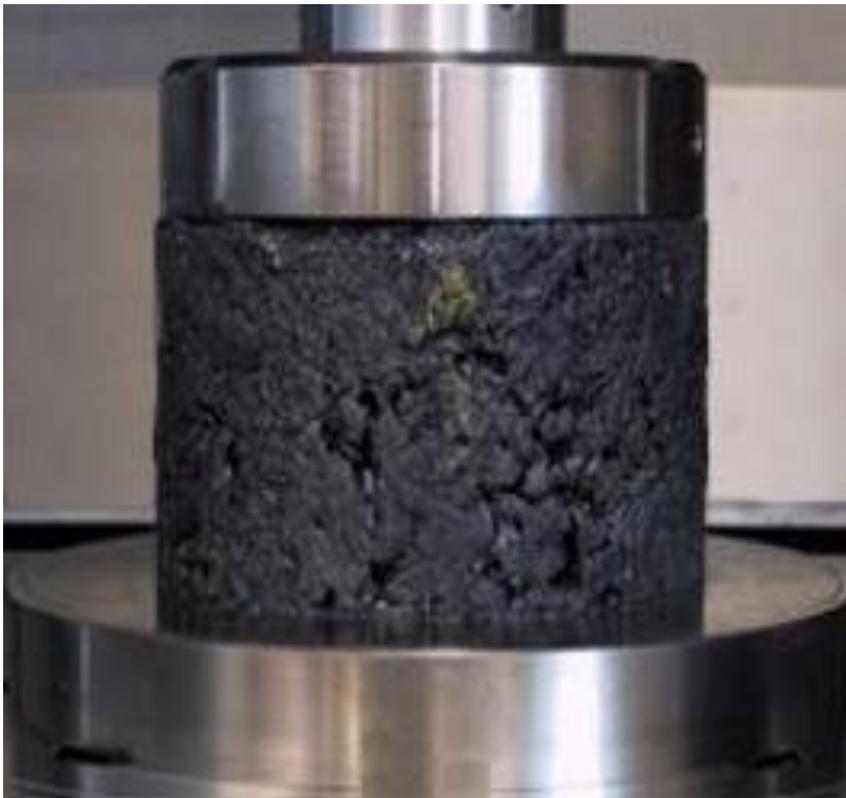
Piston penetration test

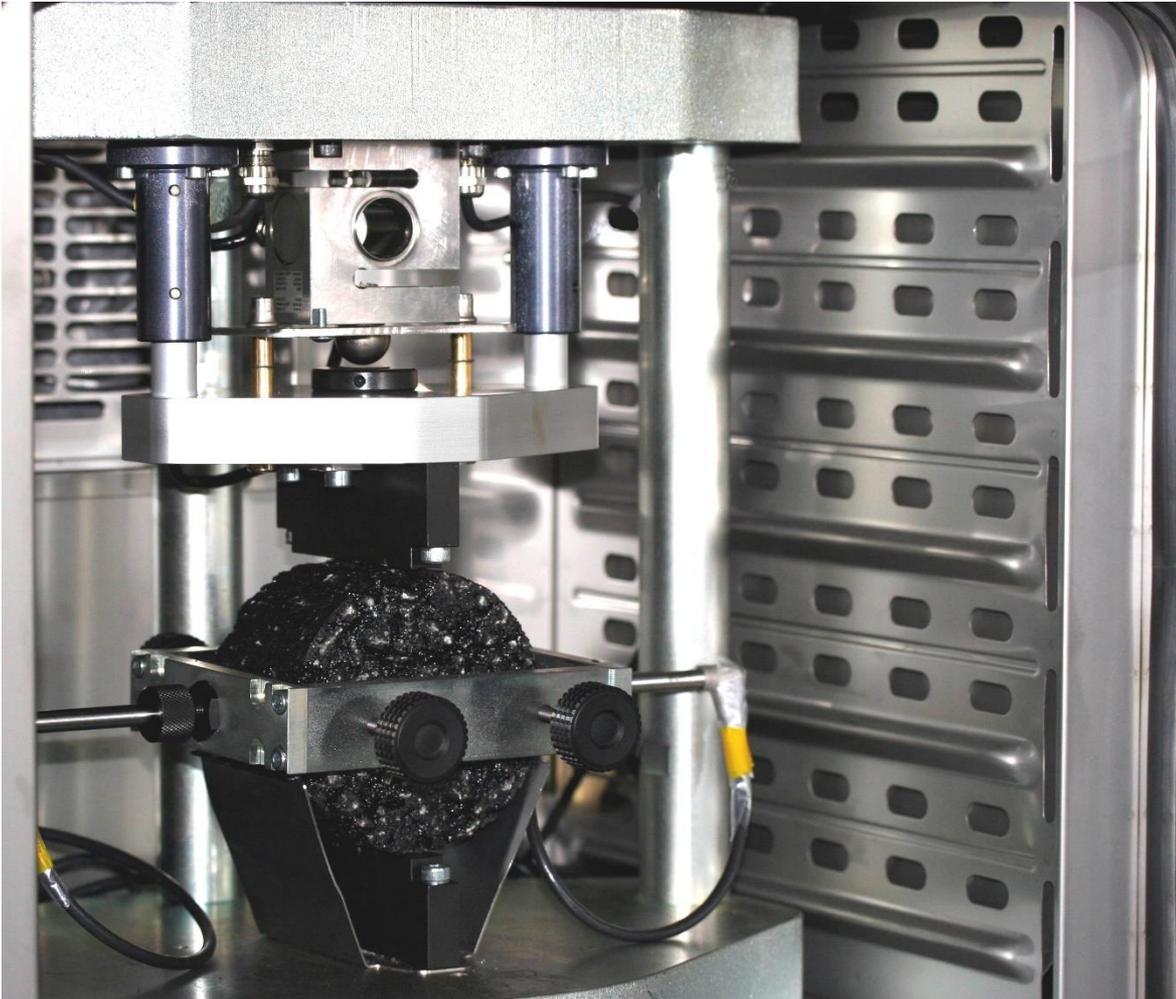




DIN EN 12697-25 – B1

Dynamic stress test

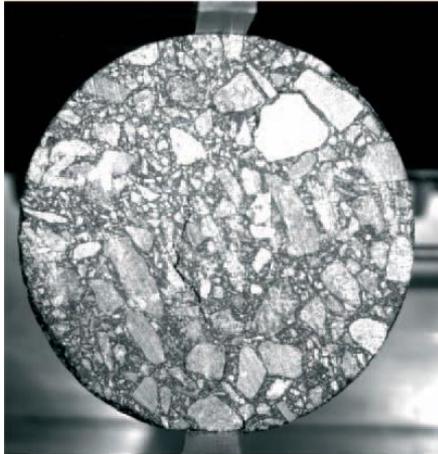




Indirect tensile test

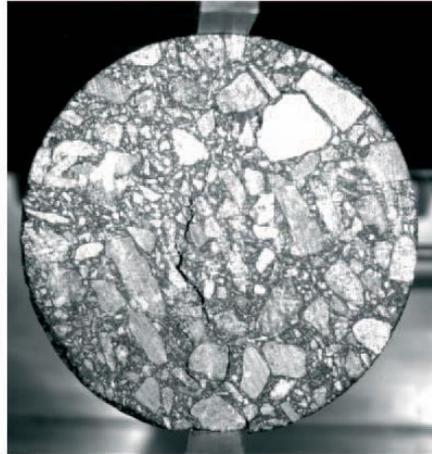
Sample failure during a dynamic Indirect Tensile Test

Pic. 1: Sample after 500 cycles



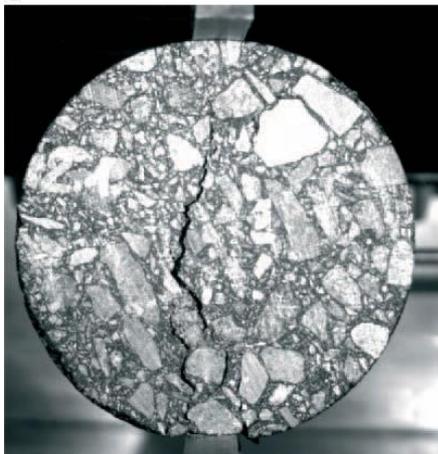
1

Pic. 2: Sample after 1500 cycles



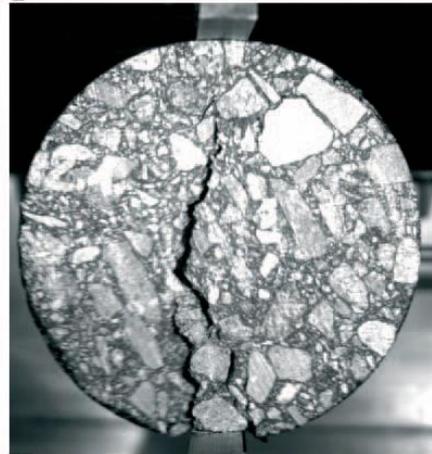
2

Pic. 3: Sample after 2000 cycles

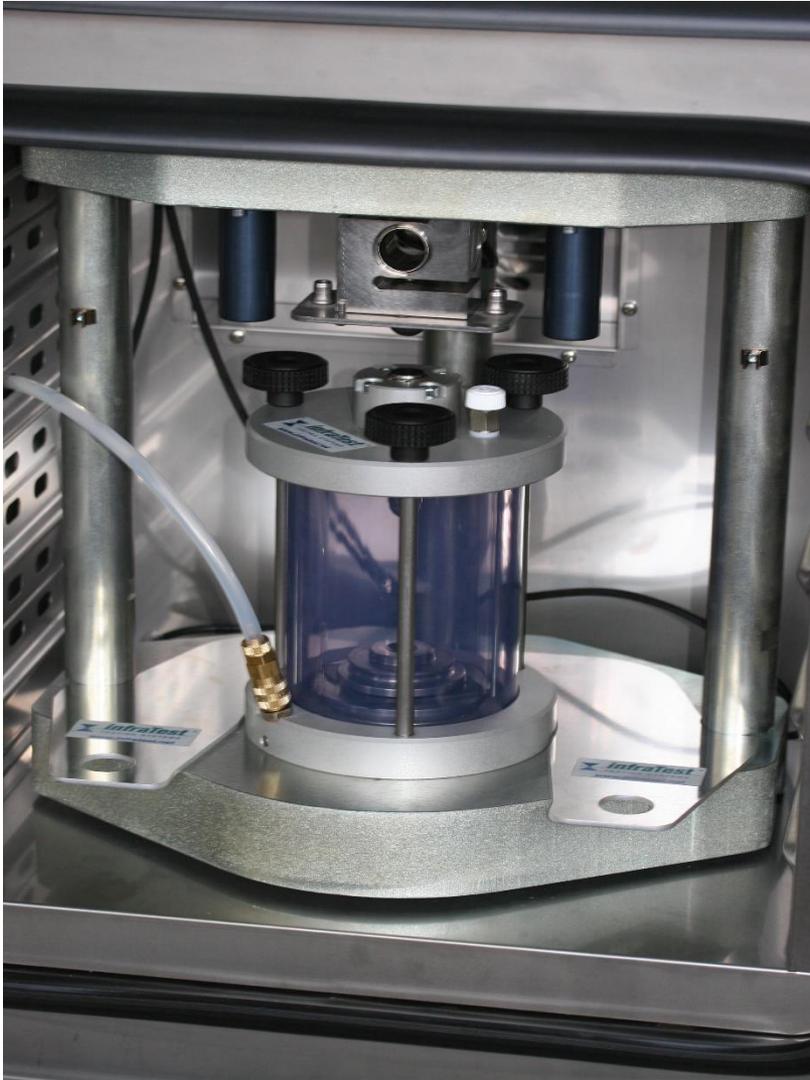


3

Pic. 4: Sample after 2800 cycles



4



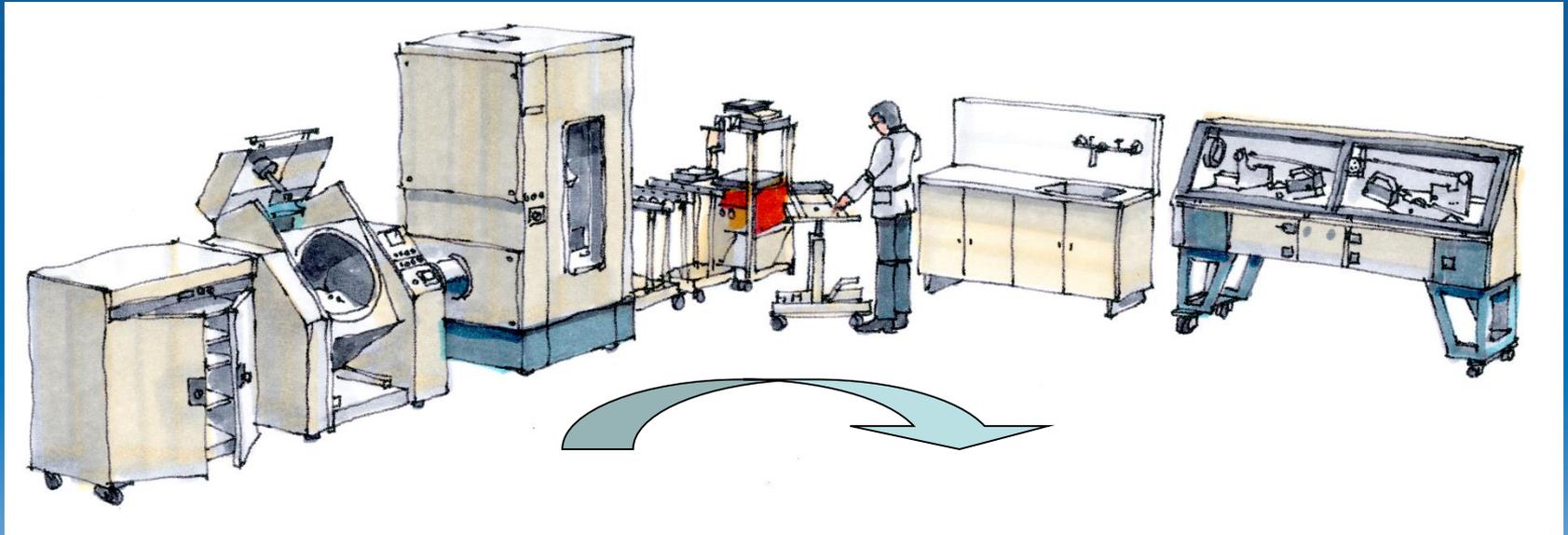
Tri axial test





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Makes
everything
possible



Systematic testing

