

# Balanced Mix Design Tester

Fixtures	Standards
SCB (Semi-Circular Bending)	<b>EN 12697-44:2019</b> - This European standard specifies the method for determining the fracture toughness of asphalt mixtures using the SCB test.
	<b>AASHTO TP 105-13</b> - This standard from the American Association of State Highway and Transportation Officials (AASHTO) outlines the procedure for the SCB test to determine the fracture energy of asphalt mixtures.
	<b>LSU Test Method (ASTM D8044-16)</b> - The American Society for Testing and Materials (ASTM) standard for evaluating the cracking resistance of asphalt mixtures using the SCB test at intermediate temperatures.
IDT (Indirect Tension - Full Circular Sample)	<b>I-FIT Illinois Flexibility Index Test (AASHTO T393/TP124-18)</b> - AASHTO standard that uses the SCB test to assess the cracking resistance of asphalt mixtures.
	<b>ASTM D8225-19</b> - This standard is used for the Indirect Tensile Asphalt Cracking Test ( <b>IDEAL-CT</b> ), which measures the cracking potential of asphalt mixtures.
	<b>ASTM D6931</b> - This standard covers the Indirect Tensile Strength (IDT) test, which is used to determine the tensile strength of asphalt mixtures.
	<b>BS EN 12697-23</b> - This standard specifies the test method for determining the indirect tensile strength of bituminous mixtures.
	<b>AASHTO T322</b> - This standard is used for determining the creep compliance and strength of asphalt mixtures using the indirect tensile test (requires DEF-IDT322 deformation jig).
	<b>AASHTO T283</b> - This standard specifies the method for determining the resistance of compacted asphalt mixtures to moisture-induced damage, commonly known as the Tensile Strength Ratio ( <b>TSR</b> ) test
IDEAL-RT Test	<b>ASTM D4867</b> - This standard outlines the method for evaluating the moisture susceptibility of compacted asphalt mixtures using the tensile strength ratio ( <b>TSR</b> ) test.
	<b>ASTM D8360</b> - This is the primary standard for the Ideal Rutting Test. It outlines the procedures for preparing, testing, and measuring the rutting resistance of asphalt mixtures using cylindrical laboratory-prepared samples or pavement cores. These standards ensure that the rutting resistance of asphalt mixtures is accurately assessed, providing valuable data for mix design and quality control.
Texas Overlay	<b>TEX-248-F</b> - Critical fracture energy and crack progression rate are performance indices that characterize the bituminous mixtures resistance to cracking. This test method determines the susceptibility of bituminous mixtures to fatigue or reflective cracking
Asphalt Tack Coat/Interlayer Shear Strength	<b>AASHTO TP 114-18 (2021)</b> - test method covers the determination of the interlayer shear strength of asphalt pavement layers using laboratory-prepared samples or core samples.
Asphalt Disk-Shaped Compact Tension (DCT)	<b>ASTM D7313</b> - This standard outlines the procedure for determining the fracture energy of asphalt mixtures using the DCT test.
	<b>AASHTO TP 105</b> - This is another standard that provides guidelines for conducting the DCT test to evaluate the low-temperature cracking resistance of asphalt mixtures.
Marshall	<b>ASTM D6926</b> - This standard outlines the preparation of bituminous specimens using the Marshall apparatus.
	<b>ASTM D6927</b> - This standard covers the test method for determining the Marshall stability and flow of asphalt mixtures
	<b>AASHTO T245</b> - This is the AASHTO equivalent of ASTM D6927, used for determining the stability and flow of asphalt mixtures using the Marshall apparatus.
CBR	<b>BS 598-107</b> - This British Standard specifies the method for the Marshall test for bituminous mixtures.
	<b>ASTM D1883</b> - This standard outlines the laboratory test method for CBR of laboratory-compacted soils. It involves preparing and compacting soil specimens, soaking them, and then measuring their resistance to penetration.
	<b>AASHTO T193</b> - This standard is similar to ASTM D1883 and provides the method for determining the CBR of soils in the laboratory. It is used by many state departments of transportation in the U.S.
	<b>BS 1377-9</b> - This British Standard specifies the methods for testing soils for civil engineering purposes, including the CBR test.

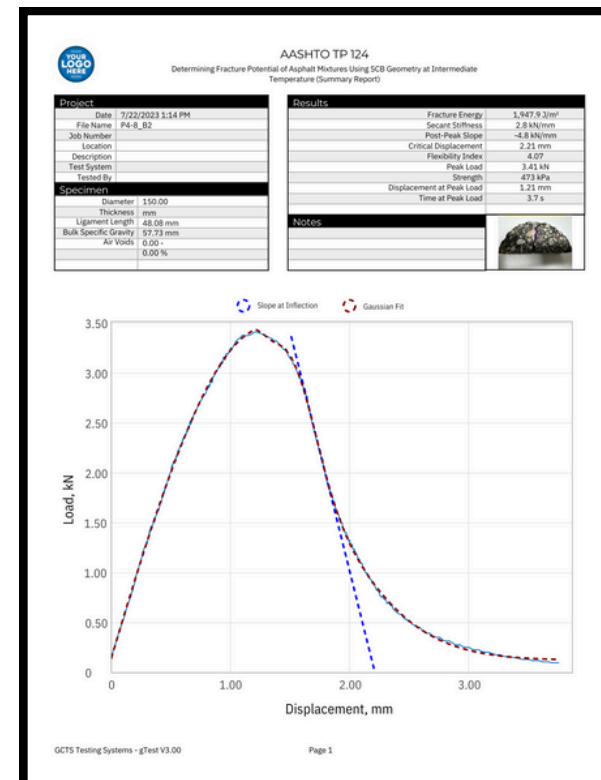
# Balanced Mix Design Tester

## EXCEEDING TODAY'S STANDARDS, READY FOR TOMORROW'S CHALLENGES

- Advanced Electro-mechanical Servo Control
- Feedback from any input channel or real-time calculated function
- CMOD rate control
  - Accurate Measurement of Fracture Properties
  - Reproducibility and Comparability
  - Simulation of Real-World Conditions
  - Influence on Crack Propagation Rate
- Affordable and Easy to use



## Automatic Reports



Model	Capacity (kN)	Horizontal Opening (mm)	Vertical Opening (mm)
eFRM-20	20	279	750
eFRM-50	50	405	1209
eFRM-90	90	405	1209

Electrical Specifications	
Resolution	24-Bit
8 Analog Inputs	Accepts load cells, pressure transducers, strain gauges, DC deformation sensors, etc.
Sampling Rate	1,000 Hz simultaneous samples (1 MHz oversampling)
Power Requirements	110-240 VAC/50-60 Hz

**Quote Now!**



# ASPHALT MIX TESTER ADVANTAGES

## Accurate Measurement of Fracture Properties:

The deformation rate affects the measurement of fracture energy and other critical parameters. A consistent rate ensures that the test results accurately reflect the material's behavior under stress

## Reproducibility and Comparability:

Standardizing the deformation rate allows for reproducibility of results across different tests and laboratories. This consistency is essential for comparing the performance of different asphalt mixtures.

## Simulation of Real-World Conditions:

The deformation rate can simulate different loading conditions that asphalt pavements experience in the real world. By controlling this rate, the SCB test can better predict how the material will perform under actual traffic loads.

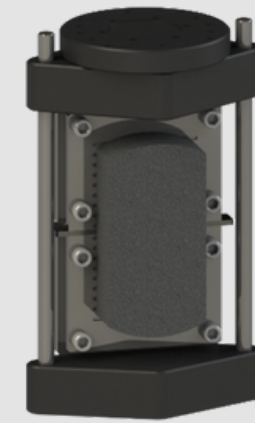
## Influence on Crack Propagation:

The rate at which the crack mouth opens influences the crack propagation phase. A controlled rate helps in understanding the material's resistance to crack initiation and propagation, which is vital for assessing its durability.

# COMMONLY USED ACCESSORIES



MARSHAL



TEXAS OVERLAY



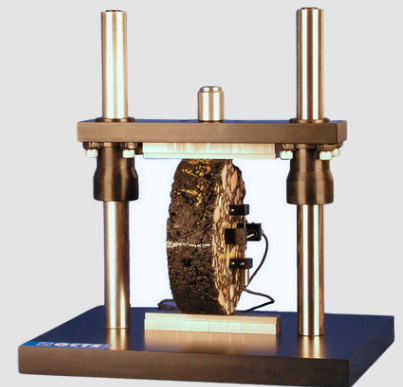
SEMI-CIRCULAR BENDING



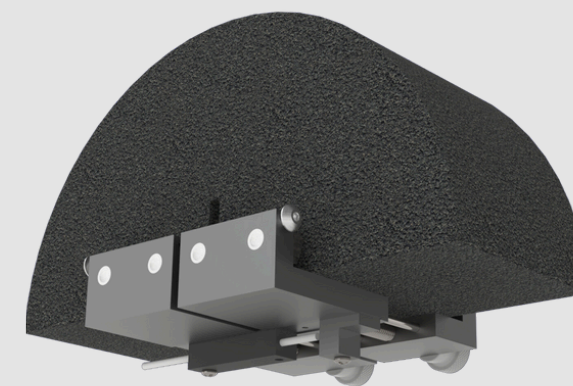
ENVIRONMENTAL CHAMBER



CBR



INDIRECT TENSION



CLIP ON EXTENSOMETER

DON'T SEE WHAT YOU NEED? LET OUR ENGINEERS SOLVE THAT