GCTS TESTING SYSTEMS

Asphalt Mix Tester

DESIGN

Precise, automated testing for balanced mix samples

CONTROL

Closed-Loop Feedback for accurate test-rate regulation

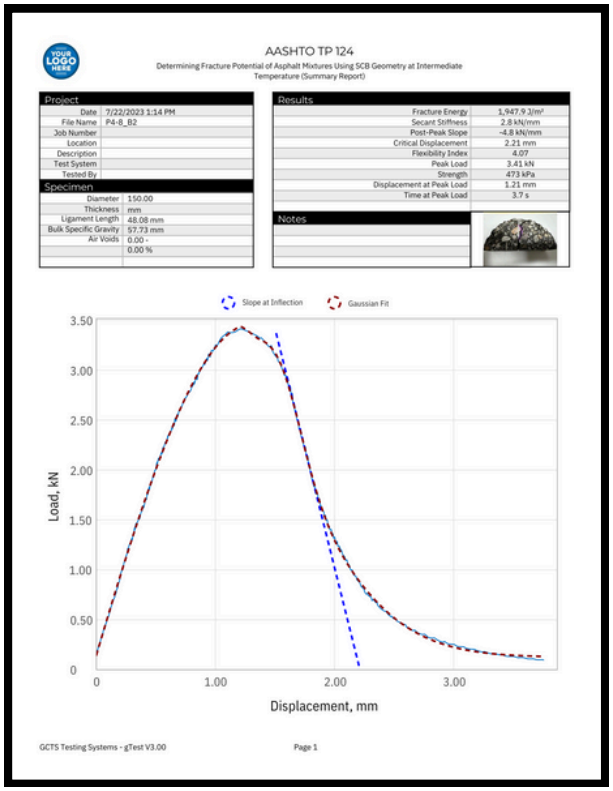
EASY TO USE

EASY

Use the gTest app to easily conduct tests and generate reports

VERSATILE

Suitable for a wide range of applications, from research laboratories to industrial settings.


AASHTO TP 124

Determining Fracture Potential of Asphalt Mixtures Using SCB Geometry at Intermediate Temperature (Summary Report)

Project	
Date	7/22/2023 1:14 PM
File Name	P4-8_B2
Job Number	
Location	
Description	
Test System	
Tested By	

Specimen	
Diameter	150.00 mm
Thickness	48.08 mm
Ligament Length	57.73 mm
Bulk Specific Gravity	0.00 -
Air Voids	0.00 %

Results	
Fracture Energy	1,947.9 J/m²
Secant Stiffness	2.8 kN/mm
Post-Peak Slope	-4.8 kN/mm
Critical Displacement	2.21 mm
Flexibility Index	4.07
Peak Load	3.41 kN
Strength	473 kPa
Displacement at Peak Load	1.21 mm
Time at Peak Load	3.7 s

Notes

Slope at Inflection Gaussian Fit

Load, kN

Displacement, mm

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Automatically Run Test and Generate Reports

gTest

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Standards	Designation	Name
ASTM	D6927	Marshall Stability and Flow of Asphalt Mixtures
	D8225	Determination of Cracking Tolerance Index of Asphalt Mixture Using the Indirect Tensile Cracking Test at Intermediate Temperature
	D8044	Evaluation of Asphalt Mixture Cracking Resistance using the Semi-Circular Bend Test (SCB) at Intermediate Temperatures
	D5581	Resistance to Plastic Flow of Bituminous Mixtures Using Marshall Apparatus (6 in. Diameter Specimen)
	D6931	Indirect Tensile (IDT) Strength of Asphalt Mixtures
	D8360	Determination of Rutting Tolerance Index of Asphalt Mixture Using the Ideal Rutting Test
	D1560	Resistance to Deformation and Cohesion of Asphalt Mixtures by Means of Hveem Apparatus
AASHTO	TP124	Determining the Fracture Potential of Asphalt Mixtures Using the Illinois Flexibility Index Test (I-FIT)
	T245	Resistance to platic flow of asphalt mixtures using marshall apparatus
BS	598	Determination of the composition of design surface course rolled asphalt
EN	12697-34	Test methods for hotmix asphalt

Mechanical Specifications	
Load Capacity	20 kN
Stroke	100 mm (4 inch)
Load Cell	SR-LC-SSM-20k Load cell ±20 kN range. 0.05% precision
Clearance, Vertical	595 mm
Clearance, Horizontal	279 mm

Electrical Specifications	
Resolution	24-Bit
8 Analog Inputs	Four Differential Inputs and Four DC Single Ended Inputs
Sampling Rate	1,000Hz simultaneous samples (1MHz oversampling)
Power Requirements	110-240VAC/50-60Hz