

TECHNOLOGY DEPLOYED IN MATC

FHWA-HIF-21-017

OVERLAY TEST (OT)

Determine your asphalt mixture's cracking potential

HOW IT WORKS

The OT applies repeated direct tension loads to asphalt mixture specimens by fixing one side of the specimen to one block and allowing the other side to slide to apply tension in a cyclic triangular waveform to a constant maximum displacement of 0.025 inches. The result of the OT is an evaluation of the specimen's critical fracture energy and the crack progression rate. Specimens are cut from a gyratory pill, with 7.0 ± 1.0 percent air voids, and conditioned at the test temperature (77°F) for at least one hour before testing.

The lower the crack progression rate, the better the cracking resistance.

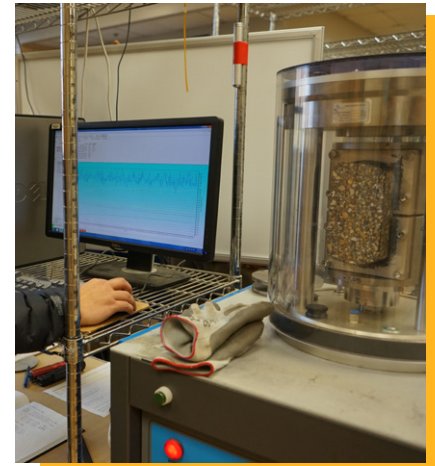


Image Source: FHWA
OT with specimen inside

OT FEATURES

Quick

OPERATION



Test time is

~3 HOURS

per specimen



Meets

TEX-248-F

standards and specifications*



New equipment costs

~\$50,000



Retrofit for
AMPT costs

~\$4,000



Tests at least

THREE REPLICATES

for each sample



SPECIMENS

require cutting
and gluing



Current use of OT in mixes and specifications in: Massachusetts, New Jersey, Nevada, Texas

Learn more at <https://www.fhwa.dot.gov/MATC>

* These standards and specifications are not FHWA requirements