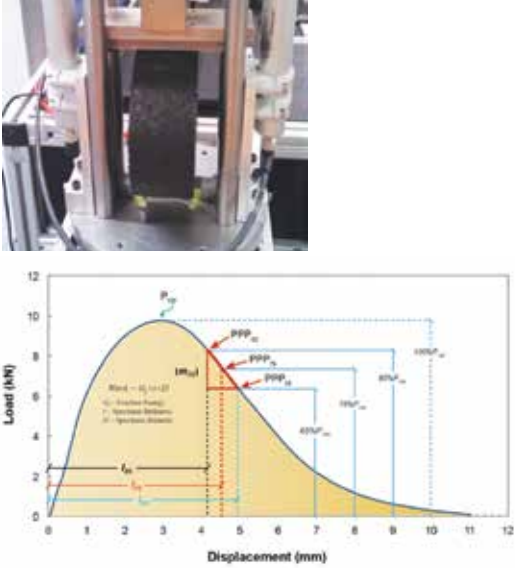


<p>Name of Test Indirect Tensile Asphalt Cracking Test (IDEAL-CT)</p>	<p>Developer(s) Zhou and Co-workers Texas A&M Transportation Institute</p>
<p>Test Method(s) ASTM D8225-19</p>	<p>Adoption by Agencies Alabama, Idaho, Kentucky, Missouri, Oklahoma, Tennessee, Virginia</p>
<p>Description The IDEAL-CT test is similar to the traditional indirect tensile strength test. The test applies a vertical monotonic load on a cylinder specimen at a constant rate of 50 mm/min. The test is stopped when the load is reduced to 0.1kN. During the test, the cross-head displacement is continuously monitored and recorded. Data analysis is conducted based on the load versus displacement curve. The test parameter CT_{Index} is calculated as a function of total fracture energy and the slope of the post-peak curve at 25 percent reduction from the peak load.</p>	<p>Photographs/Illustrations</p> 
<p>Test Results Cracking test index (CT_{Index})</p>	<p>Test Temperature(s) PG IT = ((PG HT+ PG LT)/2)+4 25°C is common</p>
<p>Equipment & Cost Stand-alone Load Frame or Data Acquisition Jig for Existing Load Frame</p>	<p>\$10,000 to 20,000 \$4,000</p>
<p>Specimen Fabrication Gyratory specimen</p>	<p>Number of Replicate Specimens A minimum of 3 specimens</p>
<p>Specimen Conditioning Conditioning for 2 hours at Test Temperature</p>	<p>Testing Time <1 minute per specimen</p>
<p>Data Analysis Complexity Simple</p>	<p>Test Variability Medium (10-25% COV)</p>
<p>Field Validations Good (pavement sections in Texas and on FHWA ALF, NCAT Test Track, and MnROAD facilities)</p>	<p>Overall Practicality for Mix Design and QA Good for Mix Design Good for QA</p>
<p>Key References</p> <ul style="list-style-type: none"> Zhou, F., Im, S., Sun, L., & Scullion, T. (2017). Development of an IDEAL cracking test for asphalt mix design and QC/QA. Road Materials and Pavement Design, 18(sup4), 405-427. NCHRP IDEA 20-30/IDEA 195. Development of an IDEAL Cracking Test for Asphalt Mix Design, Quality Control, and Quality Assurance. http://apps.trb.org/cmsfeed/TRBNetProjectDisplay.asp?ProjectID=4286, accessed on August 8, 2018. 	