

CALIFORNIA BEARING RATIO

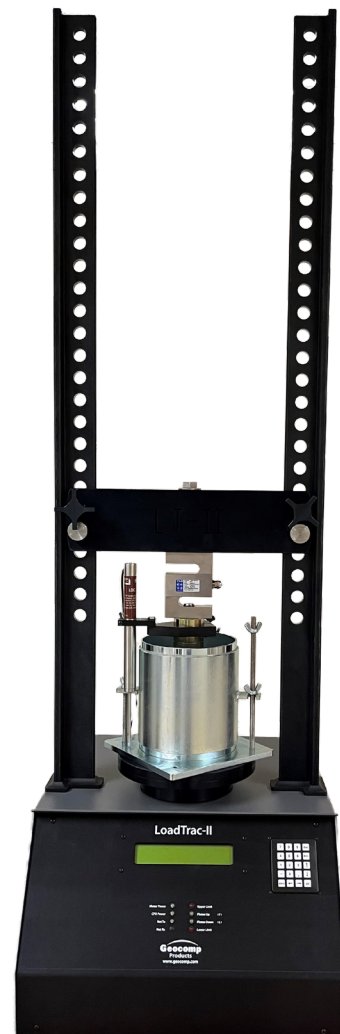
LOADTRAC II

The California Bearing Ratio (CBR) test is used in evaluating subgrade, subbase and base materials as an aid to the design of pavements. The laboratory test uses a circular piston to penetrate material compacted in a mold at a constant rate of penetration. The CBR is expressed as the ratio of the unit load on the piston required to penetrate 0.1 in. (2.5mm) and 0.2 in. (5.1 mm) of the test material to the unit load required to penetrate a standard material of well-graded crushed stone.

- Built in safety features
- Smart and sophisticated technologies to simplify testing
- Repeatable, reliable, and accurate results you can trust
- Real-time and remote test parameter changes for quality control
- Convenient reporting and data export
- Faster, smarter, better: designed with full automation and manual control options
- Easy upgrade to perform additional test types
- Designed and manufactured in the USA

Applicable Test Standards

- ASTM D1883
- AASHTO T193
- BS 1377-4
- AS 1289



Standard Fully Automated California Bearing Ratio System

CALIFORNIA BEARING RATIO LOADTRAC II



TECHNICAL SPECIFICATIONS

LOAD CAPACITY

45 (10 klbf) or 90 kN (20 klbf)

MOTOR

Micro-stepper system with built-in controls

RATE OF DISPLACEMENT

0.00003 to 25 mm per minute
(0.000001 to 1.0 in per minute)

TRAVEL

Built-in displacement transducer with 76 mm (3 in) range and 0.0013 mm (0.00005 in) resolution

POWER

110/220 V, 50/60 Hz, 1 phase

DIMENSIONS

464 x 546 x 1206 mm (18 x 21.5 x 47.5 in)

WEIGHT

55 kg (120 lbs)

INCLUDED

- GeoNet-U USB 2.0 network adapter and cable to link to PC/laptop
- CBR software module to automatically run and report tests

ACCESSORIES

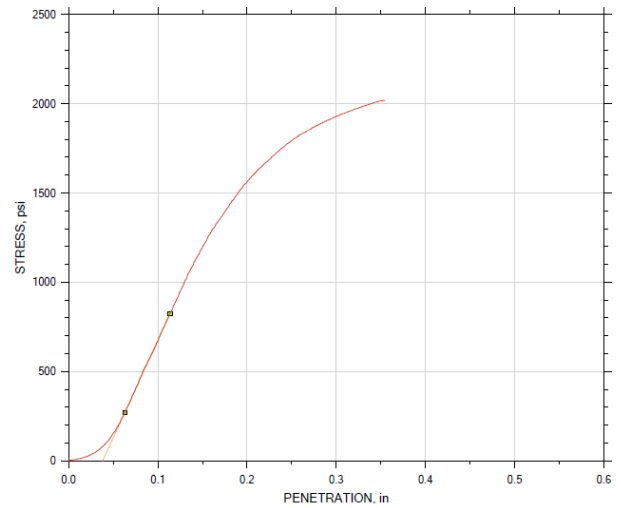
CBR piston and mold

WARRANTY

12 month warranty; extended warranties available

Typical Test Output (example)

CALIFORNIA BEARING RATIO TEST REPORT



Sample Height, in	4.58
Sample Area, in ²	28.274
Sample Volume, ft ³	0.07494
Sample Mass, gm	4796.8
Sample Condition	Soaked
Swell, %	0.50
Surcharge, gm	4536
Void Ratio	0.32
Wet Unit Weight, pcf	141.11
Dry Unit Weight, pcf	125.72

California Bearing Ratio		
at 0.1 in: 109	at 0.3 in: 105	at 0.5 in: N/A
at 0.2 in: 117	at 0.4 in: N/A	

Water Content	Before	After	Average	Soaked
Tare ID	2521	2420		8032
Tare Mass, gm	8.12	8.25		8.29
Mass Tare + Wet Soil, gm	377.62	254.86		276.71
Mass Tare + Dry Soil, gm	347.21	221.72		249.07
Water Content, %	8.97	15.52	12.25	11.48

Project: CBR	Location: Place, USA	Project No.: CBR123
Boring No.: Composite	Tested By: ab	Checked By: xy
Sample No.: CD/SC-SB-44	Test Date: 03/01/2018	Depth: 0-4 ft
Test No.: CBR-7	Sample Type: remolded	Elevation: ---
Description: Dry, reddish brown silty sand		
Remarks: Target Compaction: 101% of Maximum Dry Density (128.5 pcf) at Optimum Moisture Content (9.0%)		

User Friendly Interface

CBR
File View Run Calibrate Control Report Options Help

Project
Specimen
Water Content
Read Table
Test Parameters

Read Table: Time ▾

Displacement Rate: 0.05 in/min

Maximum Test Duration: 60 min

Maximum Load: 10000 lb

Maximum Displacement: 0.6 in

Sample Condition: Soaked
 Unsoaked

Surcharge: 4536 gm

Swell Height: 4.6027 in

Correction Range: 0 in

Correction Maximum: 0 in

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