

DATA SHEET

Energy Absorption Test on Slabs



Testing FRC round slab on 300 kN flexure frame to ASTM Standard

General description

This test is performed to assess the flexural performance and the residual resistance characteristics of fiber reinforced concrete (FRC) and shotcrete slabs.

This test has to be performed with a suitable flexural frame having proper stiffness and capacity as, for instance, our models 50-C15xx/FR or 50-C17xx/FR, and a control console capable of applying load in displacement control as our model MCC or Automax Multitest.

The test can be carried out on square or round slabs according to EN standard or ASTM standard.

In both cases the test set includes a supporting frame for the sprayed slab, a loading spherically seated punch and a displacement transducer for central slab deflection measurement.

Testing to ASTM can be performed only in the flexure frames having 300kN or 350kN capacity.

Standards

- EN 14488-5
- ASTM C1550

Specifications

Round slabs testing to ASTM C1550

With SIMPLEX or DUPLEX frames 50-C17x1/FR and C-shaped open-structure 300kN frame 50-C1601/FR:

50-C1700/7 Round lower support frame for fiber reinforced concrete round, slabs, 800 mm dia, 75 mm thick, complete with upper element for concentrated load. Conforming to ASTM C1550.

50-C1500/9 100mm piston travel displacement transducer

50-C1500/8 50 mm central slab deflection displacement transducer

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As alternative:

50-C1700/8 60 mm central slab deflection displacement transducer

Square slabs testing to EN 14488-5

With SIMPLEX or DUPLEX frames 50-C15x1/FR or 50-C17x1/FR and C-shaped open-structure 300kN frame 50-C1601/FR:

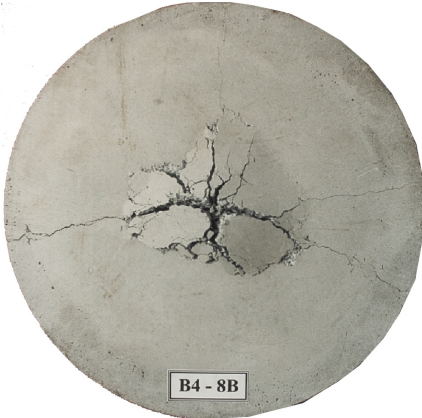
50-C1500/6 Auxiliary testing frame for energy absorption test on sprayed concrete specimens 600x600x100 mm, including supporting square base and loading element. Conforming to EN 14488-5.

50-C1500/9 100mm piston travel displacement transducer

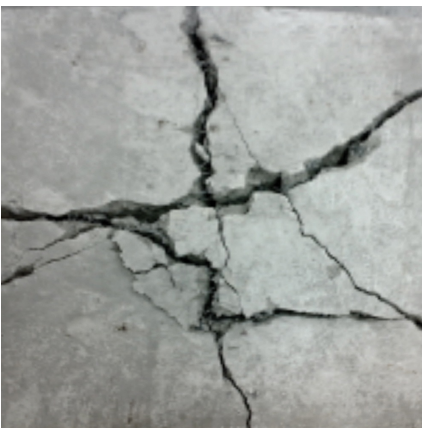
50-C1500/8 50 mm central slab deflection displacement transducer



Testing FRC square slab on 300 kN flexure frame to EN Standard



Round concrete slabs, 800 mm dia., subjected to concentrated load test, conforming to ASTM C1550

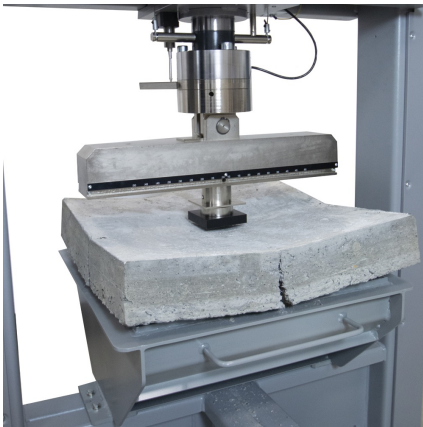


Square concrete slabs, 600x600 mm, subjected to concentrated load test, conforming to EN 14488-5

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Testing round slab to ASTM C1550 in the 350 kN flexure frame 50-C1711/FR



Testing square slab to EN 14488-5 in the 350 kN flexure frame 50-C1701/FR

Products

50-C1500/6

Accessory for 50-C15xx/FR and 50-C17xx/FR flexure frames for testing concrete slab to EN 14488-5. Including supporting square frame and spherically seated loading element. To be completed with displacement transducers 50-C1500/9 and 50-C1500/8.

50-C1500/8

LDT displacement transducer for 50-C15xx/FR and 50-C17xx/FR flexure frames, 50mm travel, for underneath displacement measurement of sprayed concrete slab.

50-C1500/9

100mm LDT displacement transducer for 50-C15xx/FR and 50-C17xx/FR flexure frames for measuring piston travel. Complete with mounting adaptors

50-C1700/7

Accessory for flexure frames 50-C17xx/FR and 50-C1601/FR for testing sprayed concrete slab to ASTM C1550. Includes: 3-points supporting base and spherically seated loading element.

50-C1700/8

Displacement transducer for FRC slab central deflection, 60 mm travel