Indian Institute of Technology Mandi

Kamand, Himachal Pradesh – 175075

FIBER REINFORCED CONCRETE TEST REPORT

Ref: IITM/CONS/BRPL/KS/128

Report No: KS_MT/Industry/2023-24/10

Description: Determination of energy absorption capacity of fibre reinforced slab specimens as per EN 14488-5:2006

Project details as specified by the client:

- Project name: RVNL Bilaspur Bhanupali Package 5 site, DBL

Sample description:

Sl.No.	Particular	Description
1	Fibre type*	PP Fibre class II (Bajaj Reinforcement Pvt. Ltd.)
2	Fibre length*	54 mm
3	Fibre dosage*	4 kg/m^3
4	Type of specimen	600 mm square panels of 100 mm thickness (supplied by the client)
5	Date of casting*	25.12.23
6	Curing age*	Not available
7	Defects in specimen prior to test	Corners damaged in some samples
8	Test date	24.01.24
9	Testing machine	Automatic, servo controlled (MCC8, Controls)
*As specified by the client		

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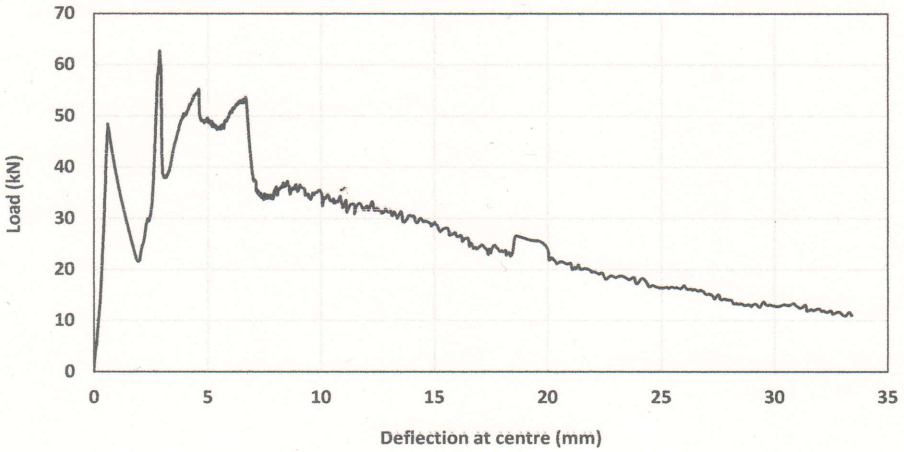
Test results for sample no.1 (4 kg/m^3 fibre dosage):

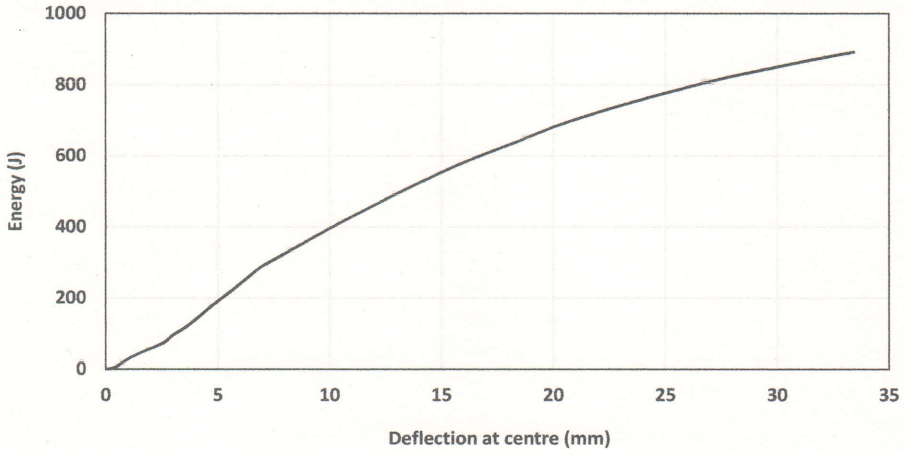
Shape of the slab: Square
Dimensions of the slab (to the nearest mm): 600 mm
Average thickness of the slab at the location of the loading block (to the nearest mm): 100 mm

Load-Deflection curve:



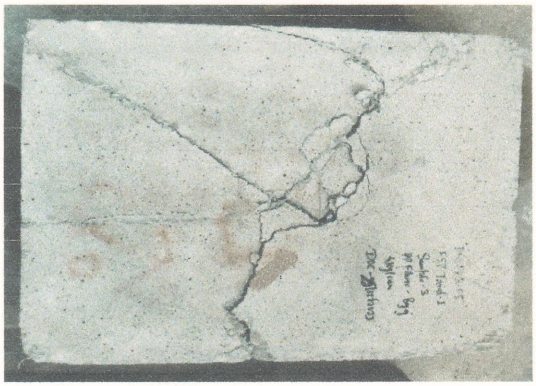
Maximum load: 62.74 kN

Energy-Deflection diagram:



Energy Absorption capacity (To the nearest 10 J): 780 J

Picture showing crack pattern:



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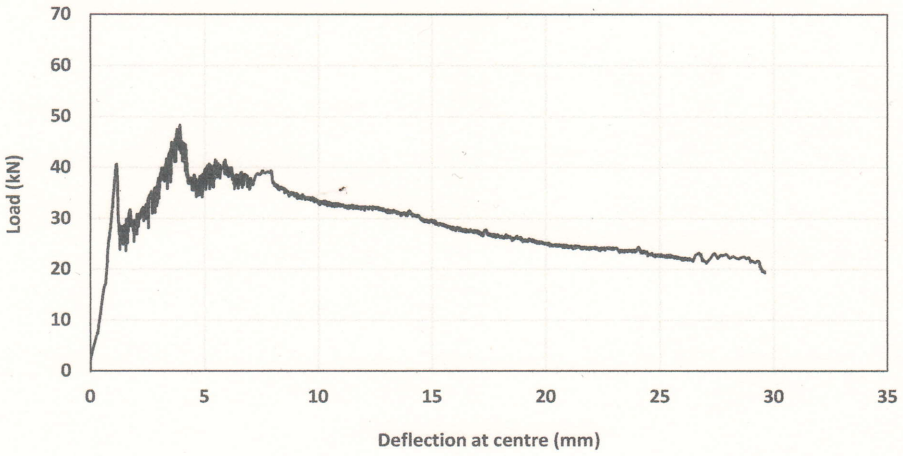
Test results for sample no.2 (4 kg/m^3 fibre dosage):

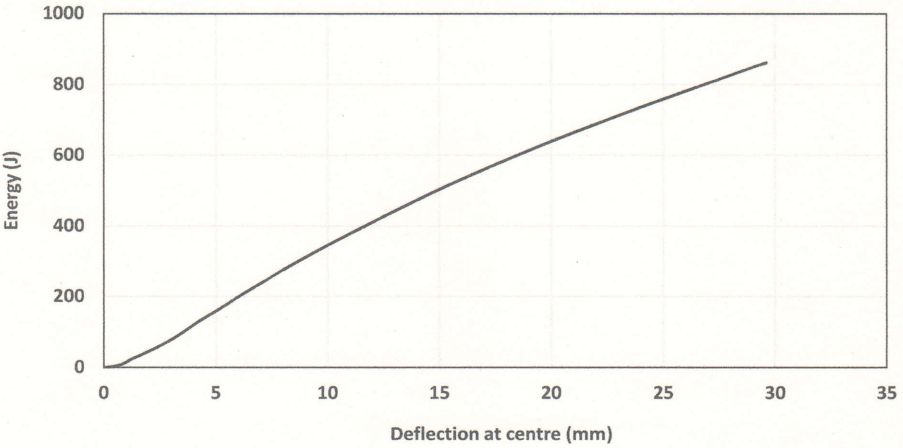
Shape of the slab: Square
Dimensions of the slab (to the nearest mm): 600 mm
Average thickness of the slab at the location of the loading block (to the nearest mm): 100 mm

Load-Deflection curve:



Maximum load: 48.28 kN

Energy-Deflection diagram:



Energy Absorption capacity (To the nearest 10 J): 760 J

Picture showing crack pattern:

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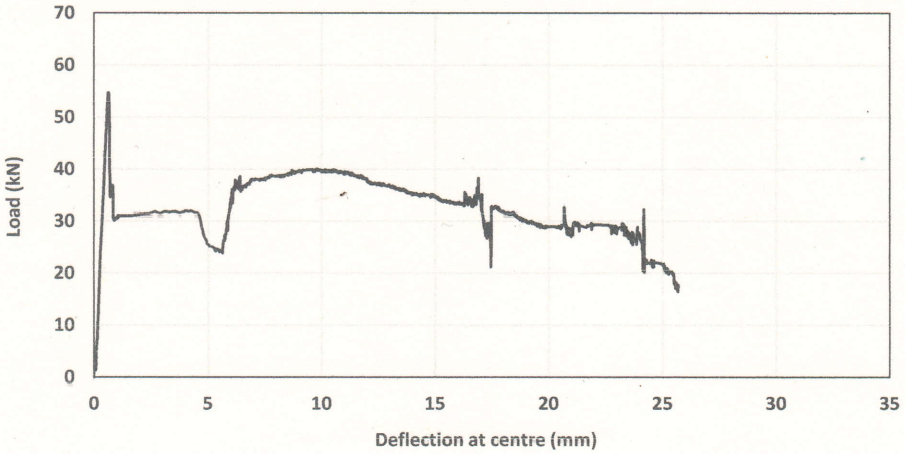
Test results for sample no.3 (4 kg/m^3 fibre dosage):

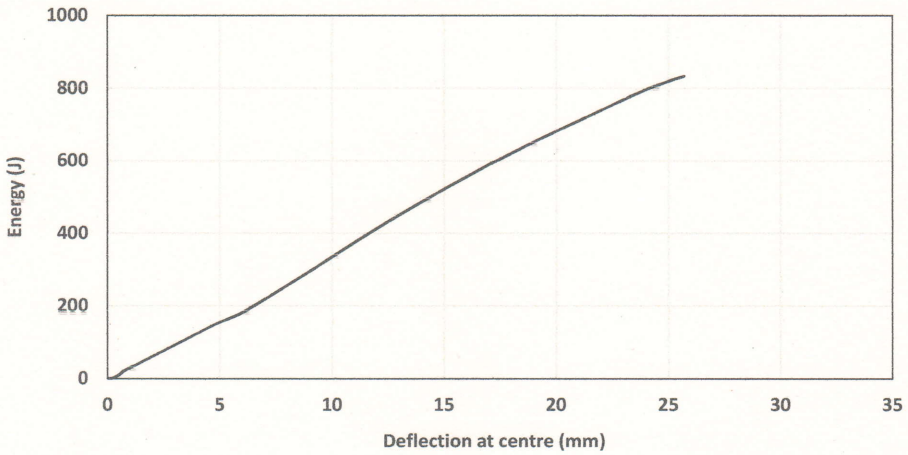
Shape of the slab: Square
Dimensions of the slab (to the nearest mm): 600 mm
Average thickness of the slab at the location of the loading block (to the nearest mm): 100 mm

Load-Deflection curve:



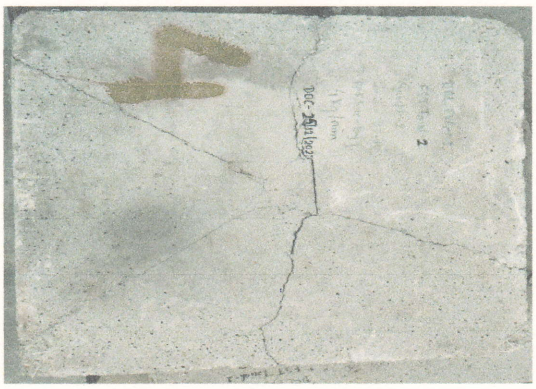
Maximum Load: 54.79 kN

Energy-Deflection diagram:



Energy Absorption capacity (To the nearest 10 J): 820 J

Picture showing crack pattern:



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