



Synmix®

Structural synthetic fibres
for concrete

BEKAERT

Description:

Synmix® 55 is a structural synthetic fibre for concrete.

Applications:

- mining

Geometry:



Length (l)

55 mm

Aspect ratio
(= l/d): 70



Equivalent
diameter (d)

0,80 mm

39 000 fibres/kg

Quality:

Synmix® is produced at an ISO 9002 certified plant.

Technical data:

1. Toughness values

Synmix® 55

Dosage ▼ (kg/m³)	Re1,5 (%)	Re3 (%)	Dosage ▼ (kg/m³)	Re1,5 (%)	Re3 (%)
4	10	10	7	20	24
5	14	15	8	24	30
6	17	20	9	28	33

Values based on concrete $f_{ctm,fl} = 5,5 \text{ N/mm}^2$.

2. Energy absorption - plate test

Energy absorption (J) in plate test, according to Efnarc/SNCF (concrete C35/45):

Synmix® 55

Dosage ▼ (kg/m³)	S25 (J)	Dosage ▼ (kg/m³)	S25 (J)
4	650	7	1050
5	800	8	1100
6	900	9	1200

Recommendations - mixing

1. General

- ✓ preferably use a central batching plant mixer
- ✓ a continuous grading is preferred
- ✓ mix until all fibres are homogeneously spread over the mix
- ✓ if special cements or admixtures are used, a preliminary test is recommended



2. Fibre addition

2.1. In batching plant mixer



- ✓ never add fibres as first component in the mixer
- ✓ fibres can be introduced together with sand and aggregates, or added in freshly mixed concrete

2.2. Truckmixer



- ✓ run mixer at drum speed: 12-18 rpm
- ✓ adjust slump to a min. of 12 cm (preferably with water reducing agents or high water reducing agents)
- ✓ add the fibres at maximum speed of 5 kg/min
- ✓ after adding the fibres, continue mixing at highest speed for 4-5 min. (± 70 rotations)

Recommendations - storage



Protect the
pallets
against rain



Do not stack the
pallets on top of
each other

Delivered in

Boxes of
5 kg
on pallet

Distributed: BOSFA

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