

## 1 Trial mix design

Grade / Type of Mix	Optica Fibers	Polypropylene	Control mix
Trial Mix Reference no	LT1234	LT1235	LT1236
Date of Trial Mix	15.10.2019	15.10.2019	16.10.2019
<b>Material</b>	<b>Design (kg/cum)</b>	<b>Design (kg/cum)</b>	<b>Design (kg/cum)</b>
Cement Content	370	370	370
Total Aggregate content	1902	1902	1902
Water	167	167	167
<b>Total</b>	<b>2439</b>	<b>2439</b>	<b>2439</b>
Superplasticizer	2.2 kg/cum	2.2 kg/cum	2.2 kg/cum
Optica Fibers	600 grams	-----	Nil
Polypropylene Fibers	-----	900 grams	Nil
Water to Binder ratio	0.45	0.45	0.45

Note:

- Mix design is pertaining to the aggregate contents selected and water to cement ratio considered.

**For ICOMAT**

Sd/-  
G.Sivakumar  
Managing Director

## 2 Trial mix results

Grade / Type of Mix	Optica Fibers	Polypropylene	Control mix
Trial Mix Reference no	LT1234-A	LT1235-A	LT1236-A
Date of Trial Mix	15.10.2019	15.10.2019	16.10.2019
Workability – Slump Test Value			
Initial	100 mm	95 mm	195 mm
@ 45 minutes	50 mm	45 mm	190 mm
Cube compressive Strength Test results			
7 day	35.3 MPa	33.6 MPa	35.3 MPa
28 day	47.9 MPa	47.3 MPa	48.0 MPa
Beam Flexural Strength Test Results			
28 day	5.0 MPa	4.8 MPa	4.5 MPa

### Trial mix conducted to verify the Air content of the mix with fibers

Grade / Type of Mix	Optica Fibers	Polypropylene
Trial Mix Reference no	LT1234-E	LT1235-D
Date of Trial Mix	06.11.2019	06.11.2019
Workability – Slump Test Value		
Initial	110 mm	105 mm
Cube compressive Strength Test results		
28 day	NYT	NYT
Beam Flexural Strength Test Results		
28 day	NYT	NYT
Air content Test Results		
	0.3%	0.2%

Note:

- The test results are pertaining to the raw materials used and the mix design adopted. Any change in the mix design and or raw material properties will affect the test result.
- It must be noted that the laboratory results tend to be higher due to accuracy maintained in weighing and higher degree of control exercised in the entire process.

**For ICOMAT**

Sd/-  
G.Sivakumar  
Managing Director



Optica fibers Initial slump – 100mm



Optica fibers @45min slump – 50mm



Polypropheline Initial slump – 95mm



Polypropheline @45min slump-45mm



Control mix Initial slump – 195mm



Control mix @45min slump -190mm