



MICRO-LITE™

LESS WEIGHT. MORE OPTIONS.



MICRO-LITE concrete is an innovative alternative to traditional lightweight concrete.

Made with an expanded polystyrene to replace lightweight aggregate, of which sources are depleting, MICRO-LITE concrete provides superior and consistent results. It is ideal for applications where concrete weight is an issue such as floor toppings, raised decks, multi-story buildings, roof top construction and precast sections.

Performance Characteristics

Execution

- Easily pumped, placed and finished
- Can be produced at structural strengths
- Consistent results and evenly distributed mix components
- Reduced cracking

Economical

- Reduces load bearing requirements of support members, cutting sizes and saving costs
- Minimizes floor and beam thicknesses, increasing space without increasing building height
- Fire resistant properties promote costs savings on fire protection requirements

Sustainable

- Reduced aggregate use results in a reduced environmental footprint
- Improved thermal performance promotes energy savings
- Increased design flexibility
- MICRO-LITE concrete is recyclable

Versatile

- Can be used anywhere lightweight concrete is required
- May be designed at varying levels to attain desired strengths and weights
- Polystyrene can be coloured grey

Compressive Strength - ASTM C39

1920 kg/m³
17-31 MPa

2080 kg/m³
17-41 MPa

2160 kg/m³
17-48 MPa

Flexural Strength - ASTM C78

(Properties are density dependant)

1920 kg/m³
3-4 MPa

2080 kg/m³
5-6 MPa

Consistency - ASTM C143/ASTM C1611

Slump 0-150 mm

Freeze-Thaw - ASTM C666

Resistance Procedure A & B

Structural mixes achieved a Durability Factor greater than 80%

Scaling-Deicing - ASTM C672

Visual rating of surface ~2
(slight to moderate scaling)

Fire Rating - ASTM E119

(ANSI/UL 263 - CAN/ULC S101)

Fire Testing of Building Construction and Materials

UL Design No. D974
ULC Design No. F915

Modulus of Elasticity and Poisson's Ratio - ASTM C469

Modulus of Elasticity
20700-27600 MPa

Poisson's Ratio
.18-.25

*Results are affected by coarse aggregate type and loading.

**Strength results are based on 28 days.

Product Specifications

MICRO-LITE concrete meets the listed specifications.

MICRO-LITE concrete is produced in conjunction with Elemix.

MICRO-LITE is a trademark of Lehigh Hanson Materials Limited and is being used under license.