GIVING NEW DIMENSIONS TO CONCRETE

EXTENSIA

LAFARGE

bringing materials to life

Extensia™ : Premium flooring solutions using the latest concrete innovations

Application

Extensia™ combines state-of-the-art concrete technologies to achieve high strengths and low shrinkage while simplifying the construction process.

Advantages

Extensia™ technology can provide you with a superior commercial concrete floor

- High level of abrasion resistance
- 60 MPa - Integral strength surpassing that of surface hardeners
- Increased joint durability
- Highly fluid during placement, reducing construction time
- Early loading due to early strength development
- Low permeability (< 1500 coulombs)
- Up to 30% less joints

Characteristics

The compressive and flexural strength properties of Extensia™ allow for maximum flexibility in design. Engineers can use Extensia™ as an alternate to standard 25 MPa Portland cement concrete, enjoying greater freedom in slab thickness and joint layout. Extensia™ can be used in a wider variety of environments thanks to its advanced properties.

Tangible Benefits

Increased strengths lead to higher load capacity and true heavy duty useage, leading to lower lifetime costs. Additionally, the early strength development of Extensia™ results in construction loading strengths in as little as 7 days – leading to faster HVAC, lighting and electrical installations.

Sustainability

Traditional high strength concretes are developed with mixes using higher amounts of cement – thereby increasing the CO^2 content associated with the floor production. Extensia™ uses a combination of advanced concrete design technologies to achieve higher strengths without significantly increasing the CO^2 content of the flooring system.

Authorized Contractors

Only Lafarge Authorized Contractors can place Extensia™ floors. Authorized contractors are highly qualified have been selected by Lafarge for their experience and technical ability. Please contact your Lafarge representative for a list of Authorized Contractors in your area.

Site Requirements

Extensia™ is highly fluid in application, and can allow maximum productivity from placing crews. Slabs can generally be placed, finished and cut within 18 hours. Slabs must always be wet cured under plastic for seven days.

	1 DAY	7 DAYS	28 DAYS
Compressive strength*	20 MPa	50 MPa	60 MPa

RECOMMENDATIONS

SUB-BASE PREPARATION

- Sub-base preparation must meet the specifications of the design engineer.
- Materials used for the sub-base should comply with those specified.
- A plastic sheet slip membrane of at least 250 µm thickness is required.
- Slip membrane shall be laid without creases and overlapped at the edges by at least 300 mm.

JOB-SITE PREPARATION

- Walls and columns shall be isolated to avoid restraint of concrete in deformation.

TRANSPORT

- Check job site accessibility for trucks.
- In case of low accessibility or sand-covered sub-base, plan to use a concrete pump.

PLACEMENT

- Never add anything to the concrete (water or anything else) on the job site.
- Extensia™ concrete can be placed using traditional methods.
- Surface vibration is mandatory, either with a laser screed or a vibrating beam.
- Extensia™ shall be placed in enclosed conditions. In hot conditions evaporation rate should not exceed 1 $kg/m^2/h$.
- A minimum thickness of 125 mm can be used for slabs on grade (as per structural design)
- As Extensia™ concrete exhibits expansion at an early age (0.01% of total length) a specific placement sequence should be used to ensure free movement.

FINISHING

- Finishing can typically begin 4 hours after batching.
- Finished slab should be wet cured under plastic for a minimum of 7 days.
- Slabs constructed should be saw cut as soon as possible and to a depth of at least one third of slab thickness.

EXTENSIA™ | DATA SHEET

*Strength gains may depend on local conditions and materials available.

Lafarge Eastern Canada
7880 Keele Street
Concord, Ontario L4K 4G7
(905) 738-7070
www.lafarge.com