

# Ultra<sup>TM</sup> *series* Hydraumedia



Hydraumedia Concrete is an ideal solution for surface and storm water management. Typically containing 15-30% void space, it allows water to pass directly through it.

#### Where to use:

- Parking areas.
- Street and roadways shoulders.
- Patios, driveways and walkways.
- Recreational areas.
- Erosion control.

#### Advantages:

- Can be part of a cost-effective Sustainable Urban Drainage System (SUDS).
- Eliminates the need for detention ponds and any other costly storm water management.
- Allows for more efficient land development.
- Mitigates surface pollutants.

#### Technical Features:

- Consistence class S2-S3.
- Unit weight is up to 75% less than conventional concrete.
- Workable for up to 90 minutes.
- Compressive strength of 10-25 Mpa.
- Flexural strength of 1-3 Mpa.
- Excellent permeability.
- Available with integral color.

### Safety Features:

- Reduces glare from wet pavements.
- Eliminates water accumulation from heavy rain.
- Reduces the heat island effect and reflects light.

*“We aim to deliver an excellent customer experience through service, quality, accountability and value”*



## Recommendations

The standard rules for good concrete practice and placing must be strictly observed with proper curing procedures as required by normal concrete mixes.

### Design:

There are two Factors that determine design thickness:

- Hydraulic properties such as permeability and volume voids
- Structural properties such as tensile strength

### Select appropriate material properties and thickness for:

- Hydrological requirements
- Anticipated loadings
- The larger of these values governs design thickness.

### Subgrade and subbase preparation:

- Consult geotechnical engineer
- Uniform subgrade support
- Larger of two values governs design thickness
- Compact subgrade to 90-95% of the optimal density
- Increasing compaction decreases permeability

### Construction

- Not difficult to place
- Different from conventional concrete
- Stiff consistency and short sitting time require specialist handling and placement

### Transportation

- Access to jobsite should be checked before delivery as trucks need access to all areas of the slab.

### Placement

- Concrete to be placed within 90 minutes
- Visually inspect consistency
- Placement should be continuous and rapid
- No pumping
- Can be power laid

### Striking off

- Conventional forms to be used
- Vibrating screeds are commonly used for strike off
- Strike off should be 15-20 mm above the forms to allow for compaction
- Do not over vibrate the top surface

### Compaction

- Compact with steel rollers to height of forms
- Hand tamp near edges and other places rollers cannot reach

- Complete compaction within 15 minutes of placement
- No floating or trowelling

### Jointing

- 6m spacing required
- Depth of joint – ¼ slab depth
- Joint immediately after compaction (preferably to use pre-insitu jointing profiles)

### Curing & Protection

- Fog mist the surface within 20 minutes of compaction
- Cover with thin plastic sheeting 20 minutes after placement and leave in place for 7 days
- Curing compounds may also be used

### Maintenance

- Minimal maintenance required
- Design site to minimize flow of soil and leaves to pavement
- Vacuum annually or as frequently as possible, alternatively try pressure washing.

### Safety Precautions:

The use of safety goggles, gloves and suitable footwear is recommended when placing concrete.



**Lafarge Aggregates & Concrete Iraq**  
Mam Street, Al-Adala District, Southern Industrial Zone  
Erbil - Iraq  
Tel: +964 750 334 5810  
+964 750 231 8463

**LAFARGE**  
لافارج