

# Hydromedia®

FASTER DRAINING THROUGH CONCRETE



## Hydromedia® is an ideal solution for surface and stormwater management

### Applications

- o Commercial and residential parking lots
- o Pavements, bike and pedestrian pathways
- o Patios
- o Swimming pool decks
- o Alleyways
- o Driveways
- o Pavement edge drains and gutters
- o Retaining wall backfill

### Advantages of Hydromedia®

- o Can form part of a cost-effective Sustainable Urban Drainage System (SUDS)
- o Can eliminate the need for detention ponds
- o Offers space saving for more efficient land development
- o Mitigates surface pollutants
- o A more robust wearing surface
- o Faster draining
- o Smooth, clean look
- o Ease of placement due to higher fluidity
- o Low compaction requirements

### Technical features

- o Unit weight is up to 30% less than conventional concrete
- o Workable for up to 90 minutes
- o Flexural strength of 200-400 psi
- o Slump approximately 6 inches
- o Void content: Minimum 20%
- o Permeability: 4 to 60 gal/min/ft<sup>2</sup>
- o Typical nominal maximum aggregate size: 0.5in (may vary according to regional availability)



## Safety features

- Reduces glare from wet pavements
- Eliminates water accumulation from heavy rain

## Safety precautions

The standard rules for good concrete practice and placing must be strictly observed.

The use of safety goggles, hard hat, ear defenders and gloves is recommended when placing concrete.



## First Aid

- Eyes:** Immediately flush eyes, including under lids, with water for at least 15 minutes to remove all particles. If necessary, seek medical advice.
- Skin:** Wash skin with cold water and a pH neutral soap as soon as possible, except where open wounds are visible. Attention should be paid to wounds and fresh scars which should be covered with protective paraffin gauze. Seek medical help in cases of prolonged contact with wet concrete.
- Ingestion:** Rinse mouth with clean water. If swallowing has occurred, drink plenty of milk or water. Do not induce vomiting. Seek medical attention immediately.
- Inhalation:** Move to fresh air. If symptoms persist, seek medical attention.

## Design

There are two factors that determine pavement system design thickness:

1. Hydraulic properties such as permeability (related to yearly average rainfall) and volume voids (related to water storage)
2. Structural properties such as flexural strength offering better loadbearing properties

Selection of appropriate Hydromedia® properties is dependent on the more dominant between:

- Hydrological requirements
- Load-bearing requirements

The value of higher importance to the owner/designer governs design thickness.

## Subgrade and Subbase Preparation

- Uniform (level) subgrade support
- Compact subgrade to 90-95% of theoretical density
- Increasing compaction decreases permeability
- Stable subbase required, crushed aggregates recommended
- Before starting a project, consult a geotechnical engineer for more information

## Delivery

- Retention of concrete workability is 90 minutes
- Rapid drying conditions require special handling and curing
- Concrete can be placed either by chute or conveyor, not by pump

## RECOMENDATIONS

### Placement

- Use conventional forms
- Placement should be continuous and rapid
- Can be placed using a paver machine; recommended pavers are available upon request
- Avoid overworking the concrete, especially after striking off and finishing
- Use recommended placement method

### Striking off

- Vibrating screeds or standard screeds and roller compactors can be used for strike off
- Riser strips are not recommended due to minimal compaction that occurs with Hydromedia®
- Do not over vibrate or work the top surface

### Compaction and finishing

- Compact to height of form with steel roller compactors, vibrating plates or pavers
- Hand tamp near edges and other places not reached
- Complete compaction within 15 minutes of placement
- Minimize overworking or movement of the surface after compaction, including walking on the surface

### Jointing

- It is recommended to place joints immediately after compaction; otherwise saw cuts are possible after 7 days of curing
- Contact your local technical representative for further information

### Curing and Protection

- Fog mist the surface within 20 minutes of compaction
- Cover with thin plastic sheeting within 20 minutes after placement and leave in place for 7 days.
- Contact your local representative for more information

### Maintenance

- Minimal maintenance required (refer to NRMCA guidelines)
- Design site to minimize the flow of soil and leaves to pavement
- Vacuum annually or when clogging test indicates the necessity; alternatively try pressure washing

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To discuss your specialized mix and project requirements, contact your local Consumers Concrete representative.

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