

High-performance ready mixed concrete specially formulated for concrete 3D printing



## Highlights

- Highly pumpable and extrudable
- Holds shape, quickly stabilizes in place, increasing vertical print rate while reducing risk of setting in equipment
- Highly adaptable to jobsite conditions
- Strong interlayer bond
- Excellent strength and low shrinkage
- Meets and exceeds ASTM C94/C94M

## Accessory Products

- **Axion™ HR/3D** Set Accelerator. Higher dosages are suitable for faster vertical print rates or cooler temperatures.
- **Axion™ NCA/3D** Superplasticizer. Increase dosage for faster mixing and extrusion, or for higher temperatures.
- **Curing Compound**. Apply curing compound within 1-hour of printing.

## Product Data

Property	Standard	Typical Result
Compressive Strength <sup>1</sup> , psi	ASTM C39	
1-Day		Per Project Requirements
7-Day		Per Project Requirements
28-Day		Per Project Requirements
Air Content, %	ASTM C138	4 to 6
Slump, in.	ASTM C143	4 to 7
Stabilization:	N/A	
Open/Working Time <sup>2,3</sup> , min		Per Site Requirement
Solidification:	ASTM C403	
Green Strength, min		5-20
Setting Time (Initial) <sup>2,3</sup> , min	N/A	90 to 180
Vertical Print Rate <sup>2</sup> , ft/hr	ASTM C136	1.0 - 2.0
Maximum Particle Size, in		0.4

<sup>1</sup>Strength at water/solids of 0.17 <sup>2</sup>Typical values, adjustable based on field conditions and set accelerator dosing

<sup>3</sup>Open/working time is the amount of time to use concrete without remixing; however, the concrete will not set or gain strength in this time period. Initial setting time is the time for the concrete to solidify to a pre-defined strength as defined in ASTM C403.

## Instructions

1. When ordering, indicate requirements for strength, slump, aggregate size, discharge time, and setting time.
2. Concrete will be delivered to the site in accordance with ASTM C94/C94M.
3. Confirm concrete properties upon delivery. Make any adjustments with superplasticizer or set accelerator. Do not add water. If making adjustments, ensure concrete is fully mixed.
4. Load concrete into printer.
5. Extrude into place.
6. Apply curing compound within 1 hour.

## Temperature Range

Maintain freshly mixed concrete between 50 and 90°F.

## Delivery and Storage

**xForm3D™ RMX** concrete is delivered in ready mix concrete trucks for use on site.

## Compatibility

**xForm3D RMX** concrete is compatible with most 3D printers. Consult your Titan America representative for the latest information.

## Safety

Refer to the Safety Data Sheet (SDS) for additional handling instructions. Keep out of reach of children.