## Technical Bulletin

## Use of OPUS SCM<sup>™</sup> in Sugarland, TX







## About the demonstration project

OPUS SCM™ produced from a granitic feedstock was used in concrete placement during construction of the new Porsche Sugar Land Texas dealership (July 2023).

A total of **100 cubic yards of concrete** was placed, with Terra's **OPUS SCM™ replacing 20% of the Portland cement** in the concrete mix. With Christensen Building Group as the General Contractor, Odi & Son, and A.G.E. Construction worked together to batch and place the concrete with Dally and Associates, the structural design firm.

## **Concrete performance**

Concrete with OPUS SCM™ finished and set similar to a traditional concrete mix.

The concrete used for the project was designed for a compressive strength of 3500 psi at 28 days. Concrete testing was conducted by accredited third parties Alpha testing and Braun Intertec, confirming the **strength target was met and exceeded** when using OPUS SCM™ (see table below).

Further evaluation of concrete durability and long-term compressive strength (1 year) is ongoing.

| Test Parameter                | Test<br>Standard | Unit | Opus SCM™@20% |
|-------------------------------|------------------|------|---------------|
| Slump                         | ASTM C143        | inch | 3.5           |
| Compressive Strength @7 days  | ASTM C39         | psi  | 3210          |
| Compressive Strength @28 days | ASTM C39         | psi  | 4040          |