



Geomaterials

UKAS Accredited Concrete Petrography

Geomaterials Research Services are UKAS accredited to carry out concrete petrography and SEM analysis in accordance with ASTM C856 and APG-SR2.

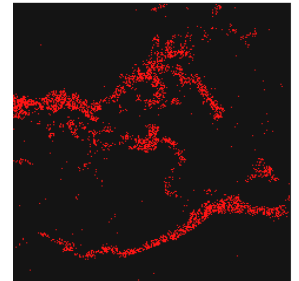
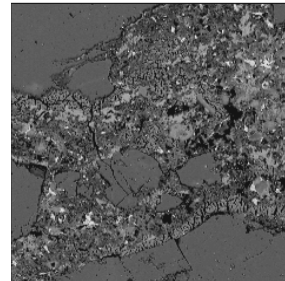
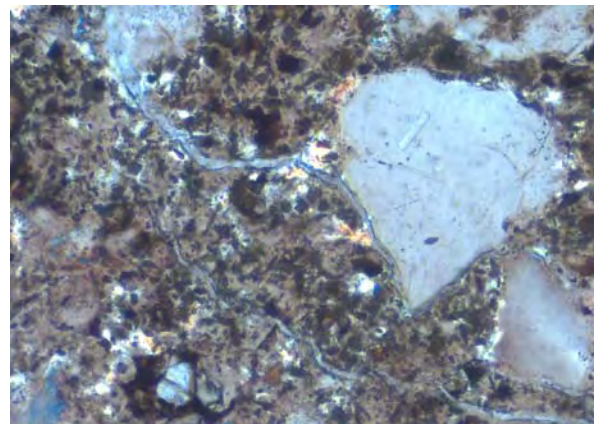
Concrete petrography is supervised by a Sandberg Partner with more than 20 years of experience in petrographic and SEM techniques.

The department utilises research-grade Zeiss and Leica petrological photomicroscopes and a Hitachi SEM with an Oxford Instruments analytical system.

A standard concrete petrographic report routinely includes the following information:

- Aggregate type and grading
- Detection of expansive or shrinkable aggregate particles
- Cement type
- Cement replacement materials such as PFA or GGBS
- Cement paste alteration
- Microcracking and porosity using UV fluorescence microscopy
- Causes of cracking
- Chemical attack
- Fire damage assessment in accordance with CSTR No. 68
- Alkali-aggregate reaction (AAR)
- Sulphate attack
- Delayed ettringite formation (DEF)
- Water / Cement ratio
- Concrete composition including cement and aggregate content

Specialist petrographic and SEM techniques are offered such as in-house procedures for the quantification of PFA or GGBS in concrete along with expert witness services.



To discuss your needs please contact

Mr Mike Eden, Partner

Geomaterial Research Services, part of Sandberg LLP

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