ASR-Detect™

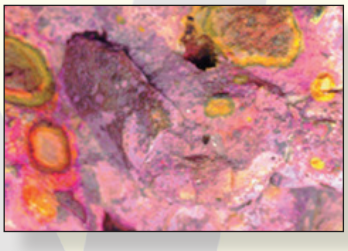
JAMES INSTRUMENTS
Non Destructive Test Equipment
Test Well. Build Well.

A simple colored dye field test to detect Alkali Silica Reaction (ASR)

ASR Core

Product Information

Field Test to identify Alkali Silica Reaction (ASR) in concrete. Two reagents are applied to the broken surface of a concrete core and the excess rinsed off. On contaminated concrete, the resultant stains reveal the presence of ASR. The stains also reveal the extent of the ASR in the concrete and indicate the stage of ASR progression. Yellow indicates that degradation has begun; pink warns that degradation is advancing.



Applications

ASR Detect™ principal application is analyzing existing concrete structures. By identifying ASR deterioration in its earliest stages, ASR Detect™ facilitates the problem being identified when remediation techniques can be applied. Where deterioration is advanced, ASR Detect™ provides a clear picture of the extent and depth of the damage. ASR Detect™ can also be applied to improving the understanding of where, how and why ASR occurs.

Features & Benefits

- Test can be carried out completely on site.
- Minimal operator training and no special equipment required.
- Utilizes only two environmentally safe dyes.
- Identifies ASR in concrete and differentiates ASR from other causes of degradation.
- Results obtained in less than five minutes are easy to interpret.
- Economic, fast and easy to use

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Advantages

In contrast to the two established methods of **ASR Detect™** ion-petrographic analysis and uranyl acetate analysis, **ASR Detect™** has numerous benefits.

Because the reagent stains are clearly visible even before the treated sample dries, a complete diagnosis is possible in less than 5 minutes. **ASR Detect™** systems are relatively inexpensive. Petrographic analysis requires shipment to a laboratory, adding time and raising the costs to hundreds of dollars per sample, also the uranyl acetate reagent is almost prohibitively expensive. **ASR Detect™** is simple enough to use in the field. Its reagent stains are visible to the naked eye and are distinctive enough to be recognized and interpreted by anyone with minimal training. Petrographic analysis requires specially trained technicians working in a well-equipped laboratory. Therefore, the use of **ASR Detect™** can considerably reduce the cost of diagnosis by reducing drastically the need for petrographic analysis.

The **ASR Detect™** reagents present minimal danger to either human health or the environment. Uranyl acetate is radioactive and contains a heavy metal and therefore, has the potential to cause health and disposal problems.

ASR Detect™ provides information not only about the presence but also the severity of ASR. Its affordability allows an engineer to analyze enough samples to obtain an accurate diagnostic picture of an entire structure. The high cost of a petrographic analysis permits only a limited number of samples to be examined.

ASR-Detect Kit

Sales Numbers

I-AS-3000 ADR-Detect™

What's included:

- One 60 ML Bottle of yellow reagent
- One 60 ML Bottle of pink reagent
- One 250 ML Bottle of distilled water
- Two dispensing pipettes
- One pair of protective gloves
- One pair of protective goggles
- One apron
- Carrying case

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