

# DPI ASR

## Description

*DarCole Alkali Silica Reactivity (ASR) Prevent* is a lithium nitrate liquid concrete admixture that chemically mitigates ASR expansion. *DPI ASR* will extend the service life of hardened concrete. Alkali Silica Reactivity is a chemical reaction that can occur in concrete between the alkali in cement and the silica in aggregates. This reaction creates a gel that absorbs water into the pore solution, which expands causing concrete to crack.

## Advantages

- Improved durability & extended service life
- Provides ASR protection to the concrete from alkalis
- No adverse effects on plastic or hardened concrete
- Contains a minimum of 30% lithium nitrate by mass

## Application

The recommended dosage rate of *DPI ASR* is determined based on the alkali content of the cement. Dosage ranges are calculated by:

- 1) Obtain the cement mill sheet and locate the  $\text{Na}_2\text{O}$ .
- 2) Determine the amount of cement necessary from the mix design
- 3) Divide the sodium equivalent by 100 to convert percentage to a decimal
- 4) *DPI ASR* is dosed at 0.55 gallons per pound of sodium equivalent.

For volumetric admix tank dilution ratios, please contact mixer manufacturer. Contact a DPI representative for further technical assistance and dosage rates.

## Compatibility

*DPI ASR* is compatible with all types of Portland cement, Class C & F fly ash, silicafume, fibers, and approved water reducing and air entraining admixtures. Contains no added chlorides or chemicals known to promote corrosion of steel. Must be dispersed separately, but is compatible with most admixtures.

## Specifications

Conforms to ASTM C494 Type S

## Packaging

Available in 5 gallon pails, 30/55 gallon drums, 275 gallon totes, and is delivered by tanker trucks for bulk purchasers.

## Limitations

May freeze below 20 degrees Fahrenheit. If product freezes, use mechanical agitation to reconstitute once thawed. Shelf Life: *18 months*

## Disclaimer

To the best of our knowledge, the information in this publication is reliable. Users should make their own tests to determine the suitability of these products for their own particular purposes. DarCole Products, Inc. makes no warranty of any kind, express or implied, including those of merchantable and fitness for purpose. The responsibility of DarCole Products, Inc. for claims arising out of breach of warranty, negligence, strict liability, or other-wise are limited to the purchase price of the materials.



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