

RUSSTECHNICAL NOTES

RUSSTECH RENU (Hydration Stabilizer)

Application Procedures for Extended Haul Times

OVERVIEW:

Concrete starts its hydration reaction from the time the dry cement has initial contact with the batch water. Extended haul times, excess drum revolutions, temperature and time can cause concrete to perform substandard to its intended application. **RUSSTECH RENU** can be used to offset these adverse factors and produce acceptable concrete in these conditions.

RUSSTECH RENU is especially helpful in the summer months when hydration is accelerated due to higher ambient and mix temperatures.

ADVANTAGES:

- Ability to service jobsites at extended travel times from mixing plant
- Helps maintain slump and proper set times of freshly produced concrete over extended haul times and increased ambient temperatures
- Aids in controlling concrete temperature when a maximum mix temperature is specified
- Concrete performance properties are still maintained while exceeding the requirements of ASTM, AASHTO and CRD specifications

PROCEDURE FOR USE:

Follow these instructions carefully:

1. After fresh concrete has been thoroughly mixed, determine temperature of the concrete.
2. Determine the total cementitious content per yard of the concrete mix design. This is the total weight of the cement, fly ash, and all other pozzolans in the mix loaded into the mixer truck.
3. Calculate the dosage per cubic yard using the table on this page.

4. After **RUSSTECH RENU** has been added to the concrete; mix truck for 2 minutes at fast mixing speed and 5 minutes at normal mixing speed.
5. Complete addition of **RUSSTECH RENU** within 15 minutes of initial contact of mixing water with dry cementitious materials.
6. Once mixing is finished, proceed to jobsite with mixer revolving as slow as possible.

The following chart contains **RUSSTECH RENU** dosage recommendations for extended haul times. These are recommendations only because materials may vary. It is therefore, recommended that trial batches be run to determine exact dosage requirements.

EXTENDED HAUL DOSAGE CHART

(ounces per 100 LBS. of cementitious)

| Concrete Temperature | Retardation (hours) | | | | |
|----------------------|---------------------|--------|--------|--------|--------|
| | .5-1 | >1-1.5 | >1.5-2 | >2-2.5 | >2.5-3 |
| 100-109 | 5.0 | 5.5 | 6.0 | 7.0 | 7.5 |
| 90-99 | 4.0 | 4.5 | 5.5 | 6.0 | 7.0 |
| 80-89 | 3.0 | 3.5 | 4.5 | 5.0 | 6.0 |
| 70-79 | 2.0 | 3.0 | 3.5 | 4.5 | 5.5 |
| 60-69 | 1.0 | 2.0 | 3.0 | 4.0 | 4.5 |

***For each 30 minutes of retardation desired beyond 3 hours on the above chart, add 1 ounce/cwt. of RENU stabilizer to the dosage on the above chart.**



RussTech Inc.

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