

RSA-10

SYNTHETIC AIR ENTRAINING ADMIXTURE FOR CONCRETE

DESCRIPTION:

RSA-10 is specially formulated for use as an air entraining admixture for concrete. **RSA-10** is manufactured under strict quality control standards to insure uniform performance at the job site.

ADVANTAGES:

RSA-10 introduces millions of uniformly sized and spaced air voids throughout the concrete mixture. Concrete containing these tiny, extremely stable air bubbles has been proven far more resistant to freezing and thawing than plain concrete. **RSA-10** in hardened concrete reduces permeability and enhances the resistance to surface deterioration caused by de-icing chemicals. Concrete containing **RSA-10** requires less water, therefore bleeding is reduced. **RSA-10** aids in finishing and produces a more water tight concrete with a lower water-cement ratio. The air bubbles act as "Ball-Bearings" to greatly improve the plasticity and workability of the concrete, making it easier to flow into forms or be pumped into place. Concrete mixes designed using **RSA-10** result in a reduction of segregation and honeycombing with smoother and more even finished surfaces.

USES:

RSA-10 may be used wherever air entrainment is required by concrete specifications. It is particularly useful in:

- All commercial and residential concrete
- Mass concrete
- High cement, low slump paving mixes
- Mixes with high carbon content fly ash
- Concrete using high-alkali cement
- All concrete to be exposed to freezing and thawing conditions
- Concrete to be mixed for an extended period of time

SPECIFICATIONS:

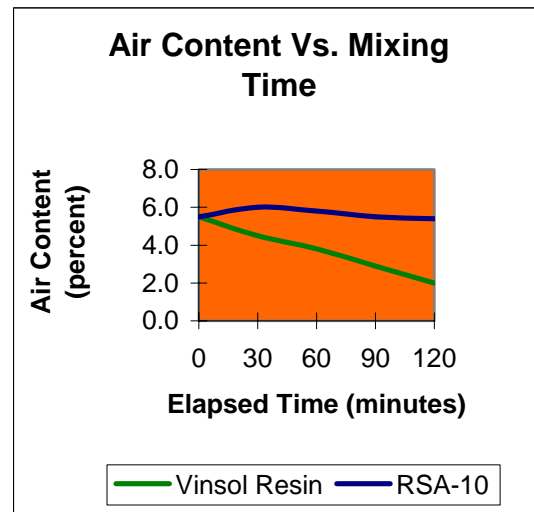
Conforms to ASTM C 260
AASHTO M 154
CRD C 13
All other Federal and State specifications

MIX PERFORMANCE DATA:

450 lbs. (307 kg) of Type I cement per cubic yard (cubic meter)
110 lbs. (65 kg) of Class F flyash with 5.8% LOI
Slump 2.1 in. (53.4 mm)
Plastic air content: 5.5%

RSA-10 Dosage Rate: 1.1 fl. oz. per 100 lbs.
(72 mL per 100 kg)

Hardened air content: 6.3%
Specific surface area: 1260 in.⁻¹ (49.6 mm⁻¹)
Spacing Factor: .002 in. (.05 mm)
Hardened air content derived using ASTM C457



*Test based on lab results with ambient temperatures between 62 F (17 C) and 70 F (21 C). Plastic concrete was adjusted to maintain slump at fifteen minute intervals. At each interval, air was checked using ASTM C 231. Slump was measured using ASTM C 143. Air contents are portrayed on the above graph.

DOSAGE:

There is no standard addition rate for **RSA-10**. The amount to be used will vary with local materials and intended concrete performance requirements, usually in the range of 4% to 6%. Typical **RSA-10** addition rates range from .5 to 2 ounces per 100 pounds (33 to 130 mL per 100 kg) of cement.

TECHNICAL NOTE:

RSA-10 does not contain calcium chloride or any chloride-based components. It will not promote or contribute to corrosion of reinforcing steel in concrete.

STORAGE:

RSA-10 should be stored at temperatures above 35 F (2 C) degrees. Although freezing does not harm the performance of **RSA-10**, precautions should be taken to protect it from freezing. If it should happen to freeze, thaw and reconstitute with mechanical agitation. **Do Not Use Pressurized Air For Agitation.**

COMPATIBILITY:

RSA-10 is fully effective and compatible in concrete containing all types of Portland cement, class C and F fly ash, silica fume, calcium chloride, fibers, and approved water-reducing, accelerating and retarding admixtures. **RSA-10** can be used in white, colored, and architectural concrete. For best results, the air entrainment should be dispensed separately into the mix with the initial batch water or on damp, fine aggregate.

PACKAGING:

55-gallon drums, 275-gallon tote tanks, and bulk tank truck

SHELF LIFE:

18 months

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