

HERO®

Air Entraining



RAMKA
CONSTRUCTION
CHEMICALS

HERO® intentionally entrains air bubbles with diameters between 0.3 and 1 mm, improving concrete durability where repeated freeze-thaw cycles occur. It is intended to reduce freeze-thaw deterioration in precast concrete and road pavements.

Guideline for Use

Determine the dosage under site conditions because entrained-air content is strongly affected by mixing method and duration. For improved performance, dilute HERO with part of the concrete mixing water before adding it to the mix.

Dosage

The resulting concrete air content should be 4 to 6%. The usual dosage is 0.1 to 0.5% by weight of cement, depending on cement type, water-cement ratio, ambient temperature and aggregate type. Continuous site testing is required.

Applications

- Concrete road pavements, airport runways, industrial floors and walkways
- Concrete for irrigation and drainage networks, particularly in cold climates
- Concrete for cold stores and jetties
- Concrete placement in cold regions
- Precast products, concrete walls, New Jersey barriers and concrete kerbs
- Concrete containing cement with high free-lime content

Approvals / Standards

- ASTM C260
- ACI 212.3R-16
- INSO 2930
- EN 934

Advantages / Benefits

- Improves resistance to freeze-thaw cycles
- May reduce water demand without reducing workability
- Improves durability in cold environments
- Reduces segregation of fine and coarse aggregate
- Reduces harmful bleeding
- Permits controlled beneficial bleeding and helps reduce ingress of water and chemical salts
- Disrupts capillary continuity within the concrete
- Improves cohesion in poorly graded mixes
- Reduces concrete permeability

Storage

+10°C to +30°C; store in dry conditions away from direct sunlight.

Packaging

20 kg plastic can / 1100 kg IBC container

Shelf Life

1 year from the date of production in the original packaging.

Health and Safety

- Do not swallow and avoid contact with the eyes.
- In case of accidental contact with the skin or eyes, rinse immediately with plenty of fresh water.
- If swallowed, seek immediate medical attention.
- Refer to the Material Safety Data Sheet (MSDS).
- Non-flammable.

Basis Of Data

Product Information

Chemical base	Chemical, including surfactants
Form and color	Liquid / transparent yellow
density	1.03±0.03 g/cm ³
pH	7±2
Chloride ion	None



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Tel: (+98)2533557596

Mail : info@Ramkaco.com

1st Floor, Loghman St., Qom, Iran

www.RamkaCo.com

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