



**TSIRCON CO LTD**

MANUFACTURERS & TRADERS  
OF BUILDING MATERIALS

Ημ. έκδοσης 8/2010

# TSIRCO-FLOAIR 3

## Air Entraining Plasticiser

### Areas of intended use:

- Any concrete where air entrainment is needed without loss in strength for chemical resistance against deicing salts, freezing and thawing e.t.c.
- Any concrete where air entrainment is needed and better surface finish required.
- Any concrete where air entrainment is needed together with water reduction.
- Any concrete where inadequately graded aggregates are used.
- When slip formwork is used for better results.

**Usage:** Normal dosage 0.10-0.16 litres of TSIRCO-FLOAIR 3 to 50kg of cement.

**Pack:** 20 and 210 litres or bulk delivery.

**Introduction:** Concrete is susceptible to spalling and crazing due to the action of frost. This is caused when water, absorbed in the concrete, expands on freezing thereby developing internal pressures in the concrete leading to disruption of its structure. The introduction into concrete of a limited amount of entrained air, evenly dispersed throughout the mass in the form of minute bubbles, imparts a high degree of resistance to frost action.

**Advantages:** TSIRCO-FLOAIR 3 enables air entrapment to be achieved. TSIRCO-FLOAIR 3 will enable water reduction of 10-15% to be made whilst still maintaining workability.

TSIRCO-FLOAIR 3 improves the cohesive properties of concrete mixes in general by virtue of the size, nature and distribution of the air bubbles

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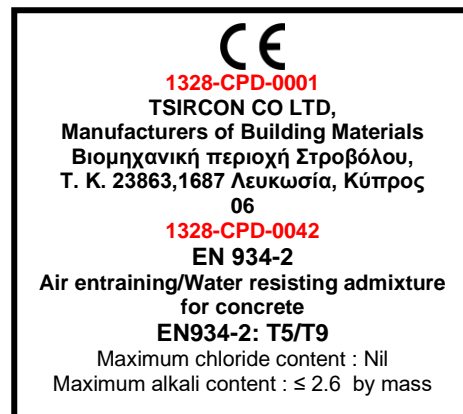
entrained bur particularly where porous or poorly graded aggregates are used.

TSIRCO-FLOAIR 3 provides all the advantages of air entrainment and plasticisation including the reduction of susceptibility to segregation, bleeding, surface blemishes and sand runs.

## Properties:

Appearance - Brown liquid  
S.G. at 20°C - 1,14

The product complies to EN 934-2:2009.



**Compatibility with cements:** TSIRCO-FLOAIR 3 can be used with all types of Portland Cement. For other mixes please consult our Technical Department.

## Where to use:

TSIRCO-FLOAIR 3 is ideal for use in:

- Pavement quality concrete.
- Concrete requiring air entrainment and plasticising benefits.
- Durable concrete with good finish.
- Concrete normally prone to segregation and bleeding.

**Dosage:** In normal to high workability concrete 0.10-0.16 litres of TSIRCO-FLOAIR 3 per 50kg Cement will allow 10-15% water reduction while entraining 4.5%+/- 1.5% of air. For lower workability concrete or concretes containing poorly graded aggregates 0.16-0.22 litres of TSIRCO-FLOAIR 3 will be required for a similar effect.



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**Storage Life:** One year in manufacturers sealed containers stored in dry frost-free conditions. If TSIRCO-FLOAIR 3 becomes frozen it should be allowed to thaw and then mixed thoroughly before use.

**Handling Precautions:** TSIRCO-FLOAIR 3 is slightly toxic. Do not ingest. Should ingestion occur an emetic of common salt and water should be given and medical advice sought. It is mildly acidic. Prolonged contact with the skin should be avoided, any splashes washes off with clean water. Any splashes to the eyes should be washed with clean water immediately and medical advice sought.

**How to Specify:** Concrete shall be air-entrained by the addition of TSIRCO-FLOAIR 3 air-entraining agent, manufactured by TSIRCON CO LTD. The dosage rate to produce an entrained air content of 4.5%+/- 1.5% to be determined by site trial mixes.