



MULTIPLAST® AirEnt-10

Air Entraining Agent for Concrete/plaster Resistant to Freeze/Thaw Cycle

Cementitious structures do not have the capacity to resist cyclic stresses generated because of alternate freeze/thaw cycles. The formation of ice, which leads to an increase in volume (approximately 9%), provokes high stresses inside mortar and concrete saturated when with water or exposed to rainwater.

For example, open car parking slabs, tunnels, flyovers, airport runways, etc. By incorporating air entraining admixture, thus creating small volume of air in the form of stable micro bubbles of 100-300 micron, prevents fatigue failure due to freeze/thaw cycles.

In such conditions, when the first ice crystals form, the increase in volume that they create, pushes the water in liquid form which has not yet frozen into the adjacent micro bubbles to ease the internal stresses.

In the phase after thawing, the capillary suction effect causes the water to be released by the micro bubbles and to flow towards the pores in the surrounding cementitious mix. This movement leaves the micro bubbles empty and ready to host water in the freezing state again the next time the natural thermal cycle comes around.

PRODUCT DESCRIPTION:

Multiplast® AIRENT-10, concrete air entraining is a ready-to-use, liquid admixture, designed for generating micro air bubbles inside the cement concrete mix.

Multiplast® AIRENT-10 is used for concrete structures exposed to freeze-thaw cycles.

BENEFITS:

-) Resistance to freeze-thaw cycles.
-) Better pumping properties.
-) lower segregation in concrete made from lightweight aggregates.



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Multiplast AIRENT-10/2015/R12-22-10-2018



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-) Increases workability of concrete or mortar mix in colder temperatures.
-) Speeds construction due to reduced setting and curing time.

USES:

MULTIPLAST® AIRENT-10 is recommended for use in various application examples, including the following:

- Floors, floor slabs, tunnels, runways and car parks exposed to rainwater and cold climates,
- Hydraulic works (dams, water channels, swimming pools, storage tanks) exposed to cold climates,
- Lightweight structural concrete elements (panels, floor beams, etc.).

TYPICAL PROPERTIES:

Physical State	Clear Liquid
Water Soluble Chlorides	< 0.1%
Normal Dosage, per 50 kg cement	200 to 400 ml
Sp. Gravity	1.01-1.20

PACKING:

5, 20, 50, 100, 200 lit carboy/drum.

STORAGE:

Store in dry, frost-free conditions at moderate temperatures not greater than 25 °C.



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DATASHEET

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SHELF LIFE:

Minimum one year if stored below 30 °C in original container and stored under shade.

WARRANTY

Multichem warrants **MULTIPLAST® AirEnt-10** to be free from manufacturing defects as defined in this warranty. Manufacturing defects are considered to be those defects that occur due to the quality of the ingredients or from the manufacturing process itself. This warranty does not include labor costs and other costs or expenses associated with the addition of **MULTIPLAST® AirEnt-10**.

Because the Multichem does not perform the actual installation, it cannot be held responsible for the results of the application. Multichem specifically disclaims problems that occur due to weather conditions, structural movement, structural design flaws and application techniques.

This warranty is in lieu of all other warranties expressed or implied including the warranty of merchantability and fitness of purpose and of all other obligations or liabilities on Multichem part. Multichem neither assumes nor authorizes any person to assume for Multichem any liability in connection with the sale and installation of **MULTIPLAST® AirEnt-10**.

Because of constant improvement of manufacturing techniques and formulations, Company reserves rights to change this datasheet and its contents without prior notice.



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