



Centrament Air LP

(Formerly Known as MC-Mischoel LP)

Air Entraining Agent For Concrete

Product Properties

- Contains no chloride
- Improvement in cohesion and in resisting, freezing and thawing cycle
- Improves the resilience and water retaining capacity of the mix
- Improves the plasticity of the mix
- Compatible with most of the other MC-Admixtures
- Improves the resilience and water retaining capacity of the mix thereby making the mix more workable accompanied with ease in compaction.
- Entrains numerous micropores of diameter less than 0.2 mm in concrete, converting the existing micropores to microscopic bubbles. Through this process of micropore building, the demand of fine contents in concrete is reduced by approximately 20 kg/m³ per every additional 1% volume of air entrained, without affecting the consistency of the mix
- A very high resistance is imparted to the hardened concrete when attacked by deicing salts
- Imparts a higher imperviousness and resistance to aggressive influences to concrete or mortar mix
- Bleeding in fresh concrete is suppressed and segregation is avoided
- Reduces honeycombs in the concrete or mortar. Therefore a homogenous and monolithic texture of concrete is guaranteed
- Lowers the water content in the mix thereby making up for the decrease in strength generally accompanying the air entrainment

Areas of Application

- Used in mortar, normal and light weight aggregate concrete
- Suitable in formulation of all type of concrete including pre-stressed concrete
- Very effective in preparation of plaster and pointing mortars

Application Notes

General

Centrament Air LP is a chloride-free air-entraining agent for mortar, normal and lightweight aggregate concrete. The introduction of **Centrament Air LP** brings about improvement in workability, cohesion and in resisting freezing and thawing cycles by the entrainment of innumerable minute air bubbles of suitable size and spacing, evenly distributed throughout the mix.

Centrament Air LP can be used with an advantage as an Air Entraining Admixture for concrete prepared at site, ready-mix concrete and lightweight aggregate concrete. **Centrament Air LP** is especially suitable for preparation of plasters and masonry mortars formulated to resist the influences of freeze/ thaw conditions.

The micropores entrained in the concrete by admixing **Centrament Air LP** are distributed evenly throughout the mass of concrete. The pores are of suitable diameter and adequately spaced. The results of tests carried out reveal that **Centrament Air LP** when added at a rate of 0.8 ml per kg of cement in the concrete with 345 kg of cement per cubic meter and water cement ratio of 0.45, the average spacing of air bubbles was 0.125 mm (required spacing less than 0.2 mm) which is well within the specified limits. By virtue of this property of **Centrament Air LP** can build up adequate micropores.

Centrament Air LP is suitable for usages as an air-entraining agent for all standard cement types and normal building lines. It is suitable in formulation of all types of concretes including lightweight aggregate concrete and prestressed concrete. Moreover it is very effective in preparation of plaster and pointing mortars.

Instruction for Use

Centrament Air LP should be added either before or during the mixing operation. It is necessary to carry out a preliminary site tests to determine the amount of air entrained in the fresh concrete. This test can be carried out according to DIN 1045

(German Industrial Standard No. 1045) or similar equivalent codes of practices. The volume of air entrained in the fresh concrete should be properly controlled and supervised at construction site and extreme care should be exercised to see that the specified limits are not violated.

Dosage

For concrete and lightweight aggregate concrete having a cement content of above 240 kg/m³, 0.05 to 0.1% of **Centrament Air LP** by weight of cement. For concrete or lightweight aggregate concrete having a cement content below 240 Kg/m³, 0.1 to 0.2% of **Centrament Air LP** by weight of cement is recommended. For masonry and pointing mortars: 0.25 to 0.35% of **Centrament Air LP** by weight of cement is recommended. For lime or binder for plaster mortars: 0.35 to 0.60% of **Centrament Air LP** by weight of cement, lime or binder is recommended.

Further Instructions / Precautions

Usage Options

Centrament Air LP is compatible with most of the other **MC-Admixtures** and this property can be taken advantage of to produce desired results. Especially when high early strength concretes having high resistance against deicing salts are desired as in the case of road concretes, a combination of plasticizer **Zentrament FBV** with **Centrament Air LP** produces excellent results. It can also be used in combination with all **MC-Retarders**.

When combining **MC-Schnell OC** with **Centrament Air LP** the admixing operation should be: **Centrament Air LP** followed by **MC- Schnell OC**. When a combination of **MC-Retarders** with **Centrament Air LP** is desired, the **MC-Retarders** should be added prior to addition of **Centrament Air LP**. This order of addition will guarantee a good stabilization of micropores entrained by **Centrament Air LP**.

Air Entrainment and Easy Application



Technical Data For Centrament Air LP

Characteristic	Unit	Value	Comments
Minimum application temperature	°C	20°C	
Mixing ratio	% by weight of cement	0.05 to 0.10	Concrete with cement content more than 240 Kg/m ³
		0.10 to 0.20	Concrete with cement content less than 240 Kg/m ³
		0.25 to 0.35	For Masonry and pointing mortars
		0.35 to 0.60	For Plastering Mortars

Product Characteristics for Centrament Air LP

Type of Product	Air Entraining Agent
Form	Liquid
Colour	Brown
Shelf Life	12 Months from date of Manufacture
Delivery	250 Kg drums and 30 Kg pails
Storage	In Unopened Packaging. Protect from Rain, Direct Sunlight, Heat and Frost
Disposal	Empty packs completely and dispose off carefully to protect our Environment

Note: The information on this data sheet is based on our experiences and correct to the best of our knowledge. It is, however, not binding. It has to be adjusted to the individual structure, application purpose and especially to local conditions. Our data refers to the accepted engineering rules, which have to be observed during application. This provided we are liable for the correctness of this data within the scope of our terms and conditions of sale-delivery-and-service. Recommendations of our employees, which may differ from the data contained in our information sheets, are only binding if given in written form. The accepted engineering rules must be observed at all times. E. & O.E.

Older editions are invalid and may not be used anymore. If a technically revised new edition is issued, this edition becomes invalid.

Edition: January 2013