



# PENTAMIX AER 905

Concentrated air entraining agent for geotechnics and cellular cement

Technical Data Sheet November 2015

**DESCRIPTION** **Pentamix AER 905** is a concentrated liquid foaming agent for use in geotechnics and for the preparation of cellular cements and cellular mixtures.

**FEATURES** Thanks to its peculiar composition, its specific density, and its easiness of solubilisation, **Pentamix AER 905** allows obtaining very homogeneous mixtures, with no segregation for a long time after the mixing. Its high concentration in active matter and its fast solubilisation in water allow obtaining micro bubbles of air with high stability. **Pentamix AER 905**, with specific machines, is also suitable for the preparation of foams used to make cellular cements and mortars sprayable and self-levelling. Unlike other foaming agents of animal origin, all other conditions being equal, **Pentamix AER 905** has no retarding effect on the setting times of the cement. This feature allows rapidly stabilising the structure of the cementitious foam, with a lower volumetric shrinkage. Moreover, the wetting capacity of **Pentamix AER 905** improves the use of other eventual additives present in the formulation of the finished product.

**USE** **Pentamix AER 905** is used as an air entraining agent for the preparation of screeds, cementitious light mortars and concretes, and conglomerates based on gypsum and anhydrite. The product is normally added to the mixing water before the binder and the other solid components. The creation of the foam depends on the composition of the mixtures and on the duration of the mixing too. When using the peculiar machines for the preparation of the cementitious foam, it is necessary to adjust the amount of **Pentamix AER 905** and water by controlling the density of the foam.

## TECHNICAL DATA

	Data	Method
<b>State:</b>	Liquid	Visual
<b>Colour:</b>	Straw-yellow	Visual
<b>Density:</b>	$1.021 \pm 0.004 \text{ kg/dm}^3$	IST. 10.06
<b>Potential of hydrogen (pH):</b>	$7.00 \pm 1.00$	IST. 10.05
<b>Water solubility:</b>	Totally soluble	IST. 10.21

**DOSAGE****In mortars and concretes.**

The dosage of **Pentamix AER 905** ranges between 0.02 and 0.1 % on the weight of the cement, depending on the desired results.

**In foams of cellular cement.**

Normally, 1 litre of **Pentamix AER 905** produces 1 m<sup>3</sup> of cellular cement, with a density of 450-500 kg/m<sup>3</sup>.

However, it is suggested to perform preliminary tests, since the density of the foam strongly depends on the features of the utilised machine and on the kind and quality of the cement too.

**STORAGE AND VALIDITY**

If it is stored in a dry place, far from cold and from the direct rays of the sun, and in the original containers kept perfectly closed, **Pentamix AER 905** has a 12 months validity starting from the date on the delivery note. It is also suggested to close carefully the containers after each collection, and to avoid the mixing of the product with other additives and with non-drinkable water.

**PRECAUTIONS**

**Pentamix AER 905** is harmless for both the mucous membranes and the eyes.

Normally, it does not affect the skin, and it can be removed from it with water and soap.

Its inhalation can cause an irritation of the first part of the respiratory tract. This trouble disappears immediately once its handling stops.

In case of accidental loss, it must be picked up with an absorbent material, absolutely avoiding the use of water, since it makes the surfaces slippery.

**PACKAGING**

25 kg plastic cans. 1000 kg IBC.

The specifications stated in this report have been got either through standardized tests and rules or their modifications following Pentachem systems. The methods applied can be requested to our technical service.

All the data stated in this technical sheet are based on our knowledge and experience. However, before using the item differently from indicated, it is advisable to carry out preventive tests. In any case, PENTACHEM does not assume any responsibility for any damage or defect caused by the use of our products, as the employment conditions are not under our control. We also inform that our technical service is at our customers' disposal for any information concerning the correct employment of our products.

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