



PENTAMIX AER 907

Concentrated air entraining agent for cellular cement

Technical Data Sheet January 2015

DESCRIPTION **Pentamix AER 907** is a concentrated foaming agent for the preparation of cellular cements and cellular mixtures.

FEATURES Thanks to its peculiar composition, its specific density, and easiness of solubilisation, **Pentamix AER 907** allows to obtain 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 to obtain micro bubbles of air with high stability. **Pentamix AER 907**, with specific machines, is also suitable for the preparation of foams used to make sprayable and self-levelling cellular cements and mortars. Unlike other foaming agents of animal origin, all other conditions being equal, **Pentamix AER 907** has no retarding effect on the setting times of the cement. This feature allows to rapidly stabilise the structure of the cementitious foam, with a lower volumetric shrinkage. Moreover, the wetting capacity of **Pentamix AER 907** improves the use of other additives when they are present in the formulation of the finished product.

USE **Pentamix AER 907** is used as 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 binding product and the other solid components. The development of the foam depends on the composition of the mixtures and on the duration of the mixing too. When the peculiar machines for the preparation of the cementitious foam are used, it is necessary to adjust the amount of **Pentamix AER 907** and water, by controlling the density of the foam.

	Data	Method
TECHNICAL DATA		
State:	Liquid	Visual
Colour:	Dark brown	Visual
Density:	Max. 1.05 ± 0.05 kg/dm ³	IST. 10.06
Potential of hydrogen (pH)	11 ± 0.5	IST. 10.05
Water solubility:	Totally soluble	IST. 10.21

DOSAGE**In mortars and concretes.**

The dosage of **Pentamix AER 907** ranges between 0.02 and 0.1 % on the weight of the cement, depending on the desired results.

For the foams of cellular cement.

Normally, 1 litre of **Pentamix AER 907** produces 1 m³ of cellular cement, with a density of 450-500 kg/m³. However, it is suggested to perform preliminary tests, since the foam's density 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 the direct rays of the sun, and in the original containers kept perfectly closed, **Pentamix AER 907** has 12 months validity beginning with delivery. It is also suggest to carefully close the containers after each collection, and to avoid the mixing of the product with other additives and with non-drinkable water.

PRECAUTIONS

Pentamix AER 907 is harmless both for the mucous membranes and the eyes.

Normally, it does not affect the skin, from which it can be removed 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.

For more information, please consult the security data sheets.

PACKAGING

25 kg plastic cans.

1100 kg IBC.

Table of dosages depending on the densities at m³

Density Kg/m ³	Ratio sand / cement	Quantity of cement Kg/m ³	Quantity of sand Kg/m ³	Quantity of PENTAMIX AER 907 lt/m ³	Type of use
200	0 : 1	160		1.160	✓ Thermal insulation of flat roofs with the creation of slopes. ✓ Foundations of floors. ✓ Insulation of slabs. ✓ Filling of ditches and cavities. ✓ Light blocks.
300	0 : 1	250		1.320	
350	0 : 1	290		1.280	
400	0 : 1	330		1.250	
450	0 : 1	375		1.210	
500	0 : 1	415		1.180	✓ Light buffer blocks with only insulation effect.
550	0 : 1	455		1.150	
600	0 : 1	495		1.110	
700	1 : 1	320	320	1.140	✓ Insulating masonry blocks.
800	1 : 1	365	365	1.120	
900	2 : 1	280	560	1.030	
1000	2 : 1	315	630	0.960	
1100	2 : 1	345	690	0.880	✓ Panels for civil and industrial buffer. ✓ Cast in situ of vertical walls.
1200	3 : 1	290	860	0.800	
1300	3 : 1	310	930	0.720	
1400	3 : 1	330	995	0.640	
1500	3 : 1	360	1075	0.560	
1600	3 : 1	380	1145	0.480	

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.