**ESA.W102**

ESA.W102 is a widely used and economical lubricant with a wide range of amount of use. ESA.W102 is based on Lygno Calcium Sulfonate. You can decrease the consuming water for concrete up to 5 %.

**Application**

* Concrete production with high performance
* Produce concrete with ballast
* Can be simultaneously used with cement mixtures, Fly ash and slag

**Features**

* Reducing water consumption in concrete up to 5 %
* Reduce the permeability of concrete
* Decrease the segregation in Super fluid concrete
* Improve Pump ability of concrete
* Improve the Rheology of concrete

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| --- | --- |
| **Technical properties** | |
| **liquid** | **state** |
| **brown** | **color** |
| **1/160/02 g/cm3** | **Specific gravity(25oC)** |
| **1 8** | **pH** |
| **-2 oC** | **Freezing temperature** |
| **Not containing Chloride ion (BS 5075)** | **Chloride ion** |
| **Non flammable** | **Flammability temperature** |

**With accordance to these standards**

**ASTM C 494- TYPE A&F**

**EN 934-2 –Table 3.1 /3.2**

**Dosage**

The dosage of ESA.W102 depends on the application, type of aggregates, amount of cement, concrete’s compressive strength, fluidity, etc. Thus for investigating the exact dosage of ESA.W102 performing some tests is recommended. Generally the suggested dosage is 0.8-0.3 % of the cement materials’ mass (cement, micro silica, ash gravel …). Changing the allowed dosage suggested by this company can alter initial and final compressive strength drastically. Thus every change should be confirmed by our company’s experts.

**How to use**

* ESA.W102 can be added to freshly mixed concrete or mixed with water with any ratio and then added to concrete.( on the batching plant or on site into the truck mixer )
* Do not use ESA.W102 directly to cement mixtures together with dry aggregates.

**Safety points**

* ESA.W102 isn’t in the category of hazardous material. And causes no harm to the body or the environment. However, wash with water before drying if contacted with skin.
* If contacted with eyes or swallowed immediately wash with a lot of water and consult a doctor.