

ARCON-Fluid^{+Plus}

Special high-performance plasticiser for architectural concrete and cast stone

- optimised rheological characteristics



Fields of application:

ARCON-Fluid^{+Plus} is based on a special polycarboxylate, a group of admixtures originally designed for the production of so-called self-compacting concrete (SCC), and is the optimised successor of HEBAU's ARCON-Fluid SCC product. **ARCON-Fluid^{+Plus}** has been especially developed for decorative and architectural concrete, fair-faced concrete, artificial stone, terrazzo etc. with exposed aggregate, acid-etched, sand- or shot-blasted, polished, or otherwise processed concrete surfaces, in order to enable the production of the most homogenous and uniform, segregation-reduced concrete surfaces. Irregularities in the distribution of the aggregates or in the appearance of the surface can be effectively avoided and the constant high-quality of the concrete surface is ensured. Consequently the combination of **ARCON-Fluid^{+Plus}** with exposed/micro-exposed (see **CSE Deactivator**), with acid-etched (see **MICROGEL**) or sand-blasted concrete surfaces, e.g. facade elements or similar architectural concrete, is highly recommended.

With **ARCON-Fluid^{+Plus}** it is not necessary to alter the mix design. On the contrary: **ARCON-Fluid^{+Plus}**, with its robust characteristics and all-round functions, has been especially developed for varying application parameters. While being a "must-have" for the production of "semi-self-compacting" concrete, **ARCON-Fluid^{+Plus}** even goes one step further. By adapting the corresponding dosage rate levels **ARCON-Fluid^{+Plus}** even enables the production of non-porous, fully self-compacting architectural concrete with a conventional mix design.

Characteristics:

- improves the dispersion of cement particles significantly, especially in comparison to "conventional" plasticisers.
- a homogenous cement paste is formed with low frictional forces, which improves the workability of the concrete.
- enables the production of a self-levelling concrete, which can be produced without or with only low vibration effort.
- the concrete has a more homogeneous structure and does not tend to segregate or bleeding.
- with a professional concrete mix composition, non-porous concrete surfaces and a uniform colouring can be achieved.

Advantages:

- Water reduction and optimised flow characteristics
- reduces segregations and can be used for conventional concrete mix designs.
- creates a stable consistency and rheological characteristics of the concrete, also and especially during varying production parameters.
- time consuming and expensive development of new, special mix designs for self-compacting concrete (SCC) is no longer necessary.
- leads to an even and homogenous spreading of the aggregates.
- irregularities in the concrete surface can be efficiently avoided and a constant quality concrete surface is ensured.
- an increase of +10,5% flexile strength and + 2,5% of compressive strength of **ARCON-Fluid^{+Plus}** was tested after 24 hours in comparison to the predecessor ARCON-Fluid SCC.

Proof of suitability / certification:

- complies with the DIN EN 934 – 2 Table 2: Plasticiser
- complies with the DIN EN 934 – 2 Table 3.1 und 3.2: Superplasticiser.
- complies with the DIN V 18998
- applicable in concrete with alkali-sensitive aggregates according to DIN V 20000-100, section 8.2
- meets the requirements of the ZTV-ING (Additional technical terms of contract and guidelines for civil engineering works).
- certification number: 0672 – CPR – 1145 resp. 0672 – CPR – 1141
- when using concrete admixtures the requirements of DIN EN 206-1 und DIN 1045-2 are to be observed.

Instructions for application

ARCON-Fluid^{+Plus} should be added to the concrete batch after the mixing water has been added and should then be mixed in thoroughly. To achieve optimal non-porous concrete, the concrete should be poured into the mould through a suitable concrete spreading device, or discharging aid. HEBAU's recommended dosage rate for **ARCON-Fluid^{+Plus}** (see consumption) should not be exceeded considerably, as this may reduce the time available for the transport, handling and pouring of the concrete batch

Please note, that it is always necessary to carry out pilot tests which realistically correspond to the planned production process and application procedure.

Consumption:
Depending on concrete mix design and other parameters. Recommended dosage rate: Start with 0.2 - 1,1 % per 1 kg cement and adjust according to performance.

Packaging:
30-210-1.000 kg pail/drum/IBC

Storage:
Protect against pollution, direct sunlight and frost. Under normal storage conditions (closed container, 20 °C) shelf life minimum 12 months.

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Legal notice:

The technical information contained herein, in particular relating to the function, use and handling of our products, is given to the best of our knowledge and is based on our present knowledge and experience of the products when appropriately stored and handled, and applied under normal conditions in accordance with the standard fields of application, as described in page 1. Due to the large variety of possible use and application scenarios, this data sheet raises no claim to completeness, but is solely intended to provide a non-binding decision support, which needs to be reconfirmed by the end-user through pilot tests. Pilot tests are always necessary and should be carried out following the advice given in the current Product Data Sheet and under realistic practical conditions, i.e. conditions must realistically correspond to the planned production process and application procedure. Case-related acquired knowledge is not directly transferable to similar applications. Product specifications are subject to alterations without notice.

Only the most recent issue of the Product Data Sheet is valid, which will be supplied on request or can be found on our website under www.hebau.de.

We guarantee for the perfect quality of our material according to our specifications. We do not take any liability resp. warranty for the desired end result, as we solely act as supplier of the products and the application of the products and other influencing factors are beyond our control and our field of responsibility.

Usual precautions and actions when handling chemicals should be observed (e.g. no eating, drinking, or smoking at the place of work). Additional instructions, which can be found on the corresponding product labelling or in the Safety Data Sheet, must be observed. If you do not have a copy of the current Safety Data Sheet, we will be pleased to send you one.

Our General Terms and Conditions apply. This information is valid for professional users. Our products are not recommended for private end-users. 24.11.2015