



# Muraplast FF 90

(Formerly Known as Centriplast FF 90)

## SMF Based Universal Super plasticizer for High Early and Final Strength

### Product Properties

- Makes the mix pumpable & flowable
- High early & final strength
- Excellent compatibility with all cements
- Highest possible dispersion of cement particles
- Maximum exposure of cement particles
- Makes mixing of steel fibers easy
- Improvement in rheological properties

### Areas of Application

- As a super plasticizer for Pre-cast Industries
- For production of high Strength Concrete
- Can be used for production of pre-stressed as well as ready mix concrete
- For highly aesthetic fair faced concretes
- For concretes aggressive environment and underwater concreting
- Special version includes use in wet-cast concrete blocks manufacture

### Application Notes

#### General Information

**Muraplast FF 90** is a super plasticizer formulated and based on Sulphonated Melamine Formaldehyde (SMF) Polymers to provide high workability. **Muraplast FF 90** produces high early and final strength coupled with improved workability and is therefore particularly suitable for the pre-cast industry, mass concreting, marine structures etc. **Muraplast FF 90** does not affect setting time nor increases air entrainment in concrete.

#### Advantages

**Muraplast FF 90** produces highly plasticized concrete. It is therefore possible to reduce the water/cement ratio and thus increase the strength and consistency of the concrete. By using **Muraplast FF 90** a spread of 40 – 42cm can be increased to 53 – 55cm (DIN flow table).

**Muraplast FF 90** has no adverse side effects and produces high early strength concrete. Shuttering can be removed earlier and less compaction is required. **Muraplast FF 90** is particularly suitable for the pre-cast industry. A special version for the production of wet cast concrete blocks can be provided.

#### Instructions for Use

**Muraplast FF 90** is to be added to the concrete during mixing & should preferably be dosed along with mixing water or additional water. Adding **Muraplast FF 90** to the dry aggregate/cement mix is not recommended. It is most effective when dosed after about 70% of the mixing water has been added to concrete.

The mixing time after addition of the admixture should be long enough to allow the admixture to unfold its plasticizing effect completely.

If dosage on the job-site into transit mixer trucks is necessary, please follow corresponding engineering and safety rules.

#### Dosage

The dosage of **Muraplast FF 90** depends on the flow effect and slump retention required. **Muraplast FF 90** is generally added between 0.8-1.6% by wt of cement for flow concrete depending on the workability and retardation requirement for individual job site. Recommended dosage for high early strength is 1.5-3.0% by wt of cement. However it is recommended that site trials be taken to determine optimum dosage. In certain cases due to variations of cement, sand aggregates, weather or site conditions dosages may vary from recommendations.

**Muraplast FF 90** can be used in combination with other MC Admixtures.

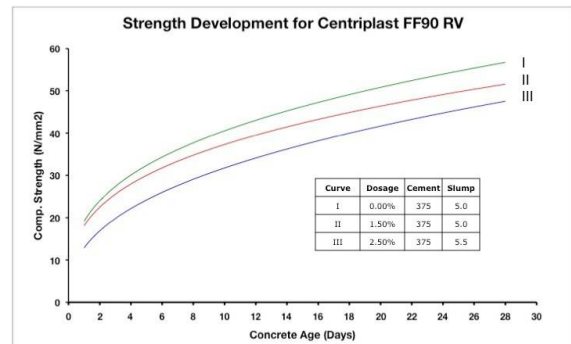
Effect of **Muraplast FF 90** for various applications such as strength increase and cement reduction in the mix is given in the Further Instructions / Precautions Section of this Technical Datasheet.



### Further Instructions / Precautions

- To determine individual technical suitability, preliminary tests should be carried out under application conditions. We shall be glad to assist you for your concrete technology testing/needs.
- Relevant standards for production, placing and curing of concrete should be followed.
- Efficient curing is essential for any concrete and is best-achieved using **Emcoril** range of curing compound. This will avoid negative effects of quick water loss from the concrete.
- Depending upon the concrete mix severe over dosage of the admixture especially retarding plasticizers and superplasticizers may result in bleeding/segregation of concrete quick loss of workability, extended initial and final setting times etc.
- Slight overdosing may not severely affect the ultimate strength of concrete provided the concrete is properly mixed, handled and placed and adequately compacted and cured.

**Graph Showing Strength increase for Concretes using Muraplast FF 90**



### Technical Data For Muraplast FF 90

Characteristic	Unit	Value	Comments
Mixing Ratio	% by weight of Cement	0.8% to 1.6%	FOR FLOW CONCRETE
Mixing Ratio	% by weight of Cement	1.5% to 3.0%	FOR HIGH EARLY STRENGTH CONCRETE

### Product Characteristics for Muraplast FF 90

<b>Type of Product</b>	SMF Based Universal Superplasticizer
<b>Form</b>	Liquid
<b>Colour</b>	Brown
<b>Shelf Life</b>	6 Months from date of Manufacture
<b>Delivery</b>	250 kg drums and 30 kg cans
<b>Storage</b>	In Unopened Packaging. Protect from Rain, Direct Sunlight, Heat and Frost
<b>Disposal</b>	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.

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