



## WATER-REDUCING/SUPERPLASTICIZING CONCRETE ADMIXTURE

### Description:

POLY 83 / 83 S / 83 W is a water-reducing plasticizer concrete admixture composed of modified sulphonate compounds that improves the workability of fresh concrete.

### Technical Properties:

<b>Chemical Content</b>	Modified sulphonate
<b>Appearance</b>	Liquid
<b>Color</b>	Brown
<b>pH</b>	8 - 11
<b>Density (20 °C)</b>	1.14 – 1.18 g/cm <sup>3</sup>
<b>Chloride Content (%)</b>	< 0.1
<b>Alkaline Content (%)</b>	< 5
<b>Freezing</b>	-10 °C

### Advantage:

- Increases ultimate strength of concrete.
- Improves workability of the concrete.
- Decreases risk of segregation.
- Extends the casting and placing time of concrete.
- Provides smooth surface finish for concrete in the formwork without any segregation.
- Prevents cold joints during concrete production with long casting time.
- Does not contain chloride or any other substances that may cause corrosion.

### Area of Use:

- Ready mixed concrete production.
- Hot weather concreting.
- Long distance concrete transportation.
- Production of various types of concrete such as reinforced, unreinforced, light or normal concrete.
- Mass concrete and roller compacted concrete applications.

### Dosage:

The recommended dosage of POLY 83 / 83 S / 83 W is between 1.0 – 2.2% by weight of the total binder content in the concrete mix design. The specified dosage may vary depending on the type of cement, aggregate properties, mineral additions, water content, and the required fresh and hardened concrete performance characteristics. The optimum dosage should be determined through laboratory trials based on the specific project requirements, and the final mix proportions should be established accordingly. When it is required, the Shva Co. technical support unit should be consulted.

### Method of Application:

POLY 83 / 83 S / 83 W should be added to the mixing water or directly into the concrete mix during batching. It is recommended not to add the admixture to dry cement. Ensure adequate mixing time after addition to achieve uniform distribution throughout the concrete. For optimum performance, trial mixes are strongly recommended before large-scale production to verify workability, setting behavior, and strength development under specific project conditions.

**Cleaning:** POLY 83 / 83 S / 83 W admixture can be washed with fresh cold water and should not be allowed enter sewers or open bodies of water.

### Usage According to Weather Conditions:

- In winter months: POLY 83 W
- In summer months: POLY 83 S
- In transitional seasons: POLY 83

### Standards:

- POLY 83: EN 934-2 Table 2  
ASTM C 494 Type A
- POLY 83 S: EN 934-2 Table 10  
ASTM C 494 Type D
- POLY 83 W: EN 934-2 Table 2  
ASTM C 494 Type A

### Compatibility:

POLY 83 / 83 S / 83 W admixture is compatible with other Shva Co. admixtures used in the same concrete mix. If more than one type of admixture will be used in the concrete mix, they must be dispensed to the concrete separately.

### Precautions in Application:

- Do not exceed the recommended dosage without prior laboratory verification.
- Always perform trial mixes before full-scale production.
- Do not add directly to dry cement; ensure addition into mixing water or fresh concrete.
- Adjust dosage in case of changes in cement type, aggregate grading, mineral additions, or ambient temperature.
- Protect the product from frost and direct sunlight.
- Ensure proper mixing time to achieve homogeneous distribution.
- Compatibility with other admixtures must be tested before combined use.
- Use appropriate personal protective equipment during handling.



### Packing:

25 kg plastic drum - 200 kg drum - 1000 kg container Bulk

**Storage and Shelf Life:** Must be stored at temperatures between +5°C and +35°C. Under proper storing conditions, the product's shelf life is 12 months from production date if kept in original packaging unopened and undamaged. Packaged products must be shaken before use.

**Security Information:** Use protective clothes, gloves, glasses and mask compatible with Health and Safety regulations during the application. It should not contact skin and eyes. In case it contacts to skin and eyes, rinse it with water and if swallowed ask for medical help. Food and beverage should not be allowed in the application area. It should be stored at the reach out of the children. The Material Safety Data Sheet (MSDS) should be read for detailed information.

