POLY 55 / 55 S / 55 W

SHVA CHEMICAL

HIGH RANGE WATER-REDUCING/SUPERPLASTICIZING CONCRETE ADMIXTURE

Description: POLY 55 / 55 S / 55 W admixture it is plasticizer based on polynaphthalene Sulphonate. This product is made of selected polymers specially designed to make the water content of the concrete work more effectively to achieve concrete strength gradually until the final stage of drying with flow concrete to achieve the highest durability of concrete. This effect can be used to improve workability, to increase final strengths. or to facilitate a reduction in cement content while maintaining mix properties.POLY 55 gives high slump increase with the same amount of water.the set retarding slump retention admixtures that enhance finish quality.

Technical Properties:

Chemical Content	Polynaphthalene Sulphonate
Appearance	Liquid
Color	Brown
pH	7 - 10
Density (20 °C)	1.06 – 1.12 g/cm^3
Chloride Content (%)	< 0.1
Alkaline Content (%)	< 5
Freezing	-10 °C

Advantage:

- To hot weather condition, in term of the condition the material must be fully saturated and used water should be cooled by ice or chillier system.
- Application where long transporting is required.
- In slab and foundation, columns, architectural structures, and RCC concretes.
- It is suitable for concrete mixes that are stiff and have a high viscosity.
- To obtain high-quality concrete with superior durability, strength, and excellent water tightness.
- Does not contain chloride or any other substances that may cause corrosion.

Area of Use:

- To increase concrete slump retention.
- High reduction in water without loss of workability with flow concrete.
- Improved early and long-term strengths.
- Improves shrinkage and creep behavior and optimizes cement utilization.
- To increase final strength & Less bleeding and separation.
- Gives a smooth surface after leveling. self-leveling.

Dosage:

The recommended dosage of POLY 55 / 55 S / 55 W is between 1.0 – 2.0% 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.

Cleaning: POLY 55 / 55 S / 55 W admixture can be washed with fresh cold water and should not be allowed enter sewers or open bodies of water.

Method of Application:

POLY 55 / 55 S / 55 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.

Usage According to Weather Conditions:

- In winter months: POLY 55 W
- In summer months: POLY 55 S
- In transitional seasons: POLY 55

Standards:

- POLY 55: EN 934-2 Table 3.1-3.2
  ASTM C 494 Type F
- POLY 55 S: EN 934-2 Table 11.1-11.2
  ASTM C 494 Type G
- POLY 55 W: EN 934-2 Table 12
  ASTM C 494 Type E

Compatibility:

POLY 55 / 55 S / 55 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.

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