# HYPERPLUS 2000 / 2000 S / 2000 W

POLYSTAR CHEMICAL

HIGH RANGE WATER-REDUCER / NEW GENERATION SUPERPLASTICIZER CONCRETE ADMIXTURE

**Description:** HYPERPLUS 2000 / 2000 S / 2000 W is a specially designed modified polymer-based, new generation, highly water-reducing superplasticizer concrete admixture. HYPERPLUS 2000 / 2000 S / 2000 W facilitates the workability and placement of concrete while ensuring a good concrete surface. It improves the rheology of the concrete, contributing to consistency retention and homogeneity. It is suitable for use in climatic conditions where high workability is desired.The product is engineered to provide optimized rheology control and climate-adapted setting performance, ensuring consistent concrete behavior under varying ambient temperature conditions.

## Technical Properties:

| | |
|---|---|
| **Chemical Content** | Polycarboxylate polymer |
| **Appearance** | Liquid |
| **Color** | Brown |
| **pH** | 4 - 7 |
| **Density (20 °C)** | 1.07 – 1.09 g/cm$^3$ |
| **Chloride Content (%)** | < 0.1 |
| **Alkaline Content (%)** | < 5 |
| **Freezing** | -10 °C |

## Advantage:

- Improves concrete's early and ultimate compressive and tensile strengths and impermeability to water.
- With its high range water reducing capabilities, enables concrete production with low water/cement ratio. Makes corrosion free concrete production possible.
- Enables concrete production with low water/cement ratio free of bleeding and segregation risks.
- Minimizes formwork striking time.
- Increases abrasion resistance of concrete by minimizing segregation and bleeding.
- Shortens application time of resin based flooring systems on fresh concrete.
- Increases freeze-thaw resistance of concrete.
- Easy placement of formwork saves energy from vibration labor.
- Easy setting to densely reinforced sections and impermeable concrete with smooth surface finish.
- Compatible with all cement types.
- Does not contain chloride or any other substances that may cause corrosion.

## Area of Use:

- For very high/high performance ready-mixed concrete production.
- For concrete applications requiring pumping over long distances.
- For concrete applications requiring long-term consistency maintenance.

**Dosage:** The recommended dosage of HYPERPLUS 2000 / 2000 S / 2000 W is between 0.5 – 1.5% 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:** HYPERPLUS 2000 / 2000 S / 2000 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: HYPERPLUS 2000 W
- In summer months: HYPERPLUS 2000 S
- In transitional seasons: HYPERPLUS 2000

## Standards:

- HYPERPLUS 2000: EN 934-2 Table 3.1-3.2
  ASTM C 494 Type F
- HYPERPLUS 2000 S: EN 934-2 Table 11.1-11.2
  ASTM C 494 Type G
- HYPERPLUS 2000 W: EN 934-2 Table 3.1-3.2
  ASTM C 494 Type E

**Compatibility:** HYPERPLUS 2000 / 2000 S / 2000 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:

- It should not be used or mixed with naphthalene-based additives.
- 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.

**Cleaning:** HYPERPLUS 2000 / 2000 S / 2000 W admixture can be washed with fresh cold water and should not be allowed enter sewers or open bodies of water.

**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.

**Head Office:** SHVA Group, Building No.15, Qasimlu Street 40, Shahidan Zargata Quarter 24, Zone 1, Sulaymaniyah 46001, Iraq
**Factory:** Tanjaro Industrial Area – Sulaymaniyah – Iraq

www.polystar-iraq.com

+ 964(0) 750 111 4900 - + 964(0) 770 757 7070