



# KEM SUPLAST 101 G

## Superplasticizer for Pavement Concrete

Ref. CA/SP-V1-0112

### Description

KEM Suplast 101 G is a high range water reducing and retarding admixture, manufactured to comply to IS 9103 – 1999 type E and ASTM C 494-2011 type G specifications. It is a brown, ready to use, high range water reducing and retarding admixture. KEM Suplast 101 G is based on water soluble Sulphonated Naphthalene Formaldehyde and selected polymers enabling optimum concrete mix performance. KEM Suplast 101 G is specifically formulated to achieve concrete mix properties as per rigid pavement concrete design, thus ensuring its best performance in highway construction.

### Use

- KEM Suplast 101 G is dosed between 0.5% to 2.2% by weight of cement used to make the concrete. At extremely high concrete temperatures, the dosage can be further increased to 2.8% by weight of cement.
- The required quantity of KEM Suplast 101 G is added to the concrete mix along with the gauging water. To determine the optimum dosage, site trials can be conducted

### Advantages

- Help in achieving higher strengths.
- Improves slump retention.
- Improves workability of the mix.
- Compatible with all types of cement.
- Helps to achieve a good cohesive mix.
- Avoids working joints.
- Accelerates the hardening process once setting has started.
- Effective concreting in hot climate.
- Imparts homogeneity to concrete mix ensuring smooth pavers movement and faster progress in rigid pavement construction.

### Typical Properties

<b>Appearance</b>	: Brown liquid
<b>Sp. Gravity</b>	: 1.19 +/- 0.02
<b>pH value</b>	: 7 - 8
<b>Cl<sup>-</sup> content</b>	: Ni
<b>Air content</b>	: < 1 %

### Standards

KEM Suplast 101 G comply to IS 9103 – 1999 type E and ASTM C 494-2011 type G specifications.

### Direction for use

When added to the concrete mix, KEM Suplast 101 G shows a strong plasticizing effect and improves the properties of fresh and hardened concrete considerably. This plasticizing effect is used to increase the workability of the fresh concrete as well as to improve the initial and final strength of concrete by reducing the W/C ratio. KEM Suplast 101 G is especially useful when large volume of concrete is to be transported over large distances with free pouring consistency.

It is effective in eliminating cold joints due to interruption of work and when a controlled extension of concrete placing time is required. For construction of marine structures KEM Suplast 101 G is most useful. Due to the excellent cement dispersing properties of KEM Suplast 101 G, a remarkable reduction of the cement content can be achieved in order to economize the concrete mix. Depending on the dosage, it delays the cement hydration process resulting in better slump retention. This is of great importance especially in countries like India where the ambient and concrete temperatures are high.

### Compatibility

KEM Suplast 101 G is compatible with OPC, PPC, Fly Ash, GGBS & micro silica

### Workability

Addition of KEM Suplast 101 G reduces the water demand of concrete and improves the concrete workability at fixed W/C ratio. When the W/C ratio is lowered, addition of KEM Suplast 101 G maintains the original workability and increases the strength of concrete.



As a concrete retarder, KEM Suplast 101 G delays the cement hydration process resulting in better slump retention. This is of great importance especially in countries like India where the ambient and concrete temperatures are high.

### **Packaging**

30/50/100/200 kg carbuoy

### **Storage and Shelf life**

**Storage :** Away from direct sunlight.

**Shelf life:** 12 months.

### **Technical Service**

Chembond has established itself in various fields on the basis of its dependable technical service. For this purpose, we maintain a well equipped laboratory for research & quality assurance of all products. Our experienced personnel are always on call and would always be available for product demonstrations and product performance monitoring.

### **Safety precautions**

KEM Suplast 101 G is non-toxic and non-flammable. However, any splashes on the human body, must be washed with plenty of water.

#### **Chembond Chemicals Limited**

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