

Kemflow Super PCE 2020

High Range Superplasticizer for High Quality Concrete

Description	Kemflow Super PCE 2020 is a high range quality ready-mix and precast concrete with significantly reduced water demands and good workability retention properties. The superplasticizer is based on the latest PCE technology so it is suitable for Self-Compacting concrete, semi-SCC, and concrete of compressive strength C50 or higher Standards: Complies with ASTM C580, C953, C143, C1218, D2369, D482, D1475, E70, & EN12190	
Where to use	Kemflow Super PCE 2020 is used for: • A wide range of applications where excellent workability is requested • Concrete with high water reduction • Highly efficient concrete applications • Variable use in different concrete systems with different raw materials • Self-compacting concrete	
Advantages	• Strong water reduction up to 30%, resulting in high density, high strength, and reduced permeability • Less strength against variations in aggregates and/or different cement types • High efficiency even at low dosage rates • Extended workability in conjunction with subsequent strength development • Superior plasticizing effect, resulting in improved flow, placing, and compaction characteristics • Reduced shrinkage during curing and reduced creep when hardened • Provides many opportunities for cost improvement • Strong self-compacting behavior of concrete • It is compatible with designs containing OPC or SRC cement, micro-silica, fly ash, and blast furnace slag	
Properties		
Solid content	43%	ASTM D2369
Chloride content	121 mg/l	ASTM C1218
Ash content	1.2%	ASTM D482
Color	Amber	
Density	1.09 g/cm³ ±0.02 at 20°C	ASTM D1475
Alkali content	Nil	
PH value	3.4	ASTM E70
Lab mix using 2% dose of Kemflow Super PCE 2020 (400 g Cement, 160 g Water, and 8 g Kemflow Super PCE 2020)		
Slump	7 – 8 cm	
Initial setting time	4 – 5 hours	
Final setting time	9 – 10 hours	
Water reduction	12%	

Compressive strength EN12190	Age / Type	Cement Mortar	Concrete
	3 Days	10 – 11 N/mm ²	13 – 18 N/mm ²
	7 Days	23 – 25 N/mm ²	32 – 40 N/mm ²
	28 Days	33 – 35 N/mm ²	52 – 55 N/mm ²

Flexural strength EN12190	Age / Type	Cement Mortar	Concrete
	3 Days	6 – 7 N/mm ²	6 – 7 N/mm ²
	7 Days	10 – 11 N/mm ²	13 – 15 N/mm ²
	28 Days	15 – 16 N/mm ²	21 – 23 N/mm ²

Dispensing	• Kemflow Super PCE 2020 is added to the gauging water or added with it into the concrete mixer • To take advantage of the high-water reduction, a wet mixing time, which depends on the mixing conditions and mixer performance, of at least 60 seconds is recommended. To avoid excess water in the concrete, the final dosage must begin only after 2/3 of the wet mixing time
------------	---

Application Instruction	The standard rules of good concreting practice, concreting production, and placing, are to be followed. • Laboratory trials shall be carried out before concreting on site, especially when using a new mix design or producing new concrete components • Fresh concrete must be cured properly and curing applied as early as possible • Do not mix it with any Naphthalene-based admixtures • Kemflow Super PCE 2020 improves the cement dispersion within the concrete significantly • This property allows the formation of a homogenous and low viscosity cement paste which provides flowable concrete with high reduced water contents • The special built of Kemflow Super PCE 2020 extends the processing time purposefully and meets the special requirements challenging the ready-mix concrete industry • A significant overdosing of Kemflow Super PCE 2020 may lead to an increased workability and an elongated set retardation of concrete • Using an appropriate curing for concrete the final strength development will not be impaired
-------------------------	--

Cleaning	• Clean all tools and application equipment with water immediately after use • Hardened/cured material can only be removed mechanically
----------	--

Theoretical Dosage Rate	0.2 – 3% by weight of cement
-------------------------	------------------------------

Packaging	Available in 25 kg pails or 220 kg drums and tanks 1000 kg
-----------	--

Shelf life & Storage	Up to one year when stored in original unopened packaging out of direct sunlight and kept under cover protected from extremes temperature
----------------------	---

Health and Safety

- **Kemflow Super PCE 2020** is non-toxic
 - Use gloves to avoid contact with skin
 - If skin comes in contact, wash immediately with soap and water
 - Do not use solvents
- Eye contamination must be immediately washed with water, then seek medical treatment
-

Additional Information

PROKEM provides the construction industry with a comprehensive range of construction chemicals and specialty products answering the queries of modern engineers for trouble free durable structure.

PROKEM designs tailor made products should there be critical application that requires specific properties rather than our main range, then and for our customer's satisfaction, **PROKEM** reserves the right to change the properties of its products. All orders are accepted subject to our current term of sale & delivery.

Users must always refer to the most recent issue of the local product data sheet for the product concerned, copies of which will be supplied on request.

PROKEM extends technical services to include after sales support to assist users in a proper handling of our products.

Environmental Considerations:

- **Kemflow Super PCE 2020** Admixture is environmentally safe and contains no volatile organic compounds (VOCs)
 - **Kemflow Super PCE 2020** Admixture contains an anti-microbial biocide to inhibit mold and bacteria growth
-