

Kemseal SF

Semi-Flexible Polymer Cementitious waterproofing for Concrete and Masonry

Description	Kemseal SF is two-components cementitious flexible polymer modified waterproofing for concrete and masonry Kemseal SF has a unique blend of selected cement, filler and additives applied in powder form (Part A) together with semi-flexible polymer in liquid form (Part B) The polymer liquid is specially designed to provide semi-flexibility when mixed and applied on concrete or masonry by means the coating has a high elongation and is compatible with the concrete thermal expansion, material can be manufactured based on sulfate-resistant cement The material complies with ASTM C-942, C-580, C-1042, D-4541, C-307, C-109, C-348, C-321, C-1305 Kemseal SF can be reinforced with Fibermesh to enhance tensile properties & crack bridging ability Kemseal SF is approved by the National Organization For Potable Water & Sanitary Drainage for drinking water and sewerage applications
Where to use	Kemseal SF is suitable for external and internal waterproofing, and crack sealing, it can be used for the following structures: • Reservoirs, roof foundation, and sealing the bar holes • Resurfacing of concrete and masonry surface • Waterproofing for below-grade application or damp-proofing coating • Terraces and balconies • Sea walls • Swimming pools
Advantages	• Pre-weighed, nothing to add • Excellent bond to non-porous and porous concrete surfaces • Semi flexible - thermal expansion similar to concrete • Reduce labor costs • Resistant to aggressive media (Carbon dioxide and Chloride ion diffusion.)
Properties	
Density	2 Kg/Liter $\pm$ 0.01
Pot life	60 minutes
Water resistance	+3 bar / -3 bar
Compressive Strength	30 - 35 N/mm ² @ 23 °C after 28 days (ASTM-C-109)
Flexural Strength	10 - 11 N/mm ² @ 23 °C after 28 days (ASTM-C-348)
Bond Strength	1.7 - 2 N/mm ² @ 23 °C after 28 days (ASTM-C-321)
Tensile Strength	2.6 N/mm ² @ 23 °C after 28 days (ASTM-D-412)
Elongation	13 % @ 23 °C after 28 days (ASTM-D-412)
Crack Bridging	1 mm (ASTM-C-1305)
VOC	2 g/l SCAQMD Rule 1113
Surface Preparation	• Surface to be coated with Kemseal SF must be clean and sound, free of dust loose particles, grease, oil, curing compounds, and mold oil sand primers from previous membrane systems • Bitumen or primers should be removed by shot blasting or mechanical means. • Spilled concrete should be repaired by cutting out to sound concrete and patching with Kemrepair range

Mixing	• Kemseal SF is supplied in premeasured units • Slowly add the Kemseal SF powder to the Kemseal SF liquid in a suitable mixing container and mix to a lump free smooth consistency • Do not add water or rework a stiffened mix by adding water • Leave to stand for 10 minutes and re-mix • Using a drill paddle specially designed to entrap as little air as possible
Application	• Dampen surface immediately ahead of application • Do not apply Kemseal SF as a thin paint coat, lay it on the wall and level it out • If the wall becomes dry or Kemseal SF starts to pull during the application, dampen the wall again • Leave the first layer for 6 hours before applying the second layer • Leave it overnight in case of low temperature & high R.H. which will delay setting and curing • Do not thin out the material - In case of using Fibermesh for reinforcing and to enhance tensile properties & crack bridging ability • Fibermesh is embedded in a base layer 0.5 mm thick covered with the first coat Kemseal SF at 1.7 Kg/m² whilst still wet • Provide suitable protection against rain, sun & wind for 24 hours • Leave to cure for 2 – 3 days at 21 °C and R.H. 80 % before contact with water • In hot weather; protect from drying out too quickly using polyethylene sheets or mist water spray
Theoretical coverage	Approximately 1.0 - 1.25 Kg/m²/ layer depending upon the porosity of the surface For reinforced system use 1.75 - 2.0 Kg/m²/ layer 2 coats are required
Packaging	25 Kg (powder & liquid) Sack & pail
Shelf life & Storage	Kemseal SF has a shelf life of 12 months if kept in original packs in a dry condition
Precaution	• Dampen surface immediately ahead of application • Care should be taken when curing in hot, sunny, or windy conditions • Do not apply when the temperature is 5 °C or due to falling below 5 °C within 24 hours
Health and Safety	• Use goggles, gloves, and a breathing mask when applying • Apply forced ventilation in confined spaces • Remove splashes from the skin with hand cleaner or soap and water • Eye splashes are to be washed with plenty of water
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 structures. PROKEM designs tailor-made products should there be a 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 terms 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 the proper handling of our products.