

# KGM-700

## Flexible Polymer Cementitious Membrane Technical Data Sheet



### Description

KGM-700 is a high performance, single component, flexible polymer cementitious membrane which only requires water to be added to the powder to form a high quality liquid membrane. Based on cross-linking polymer technology with outstanding adhesion properties, KGM-700 cures to provide you with dependable waterproofing protection for a wide range of positive and negative applications.

### Uses

KGM-700 has been formulated for most waterproofing applications requiring long term waterproofing and is designed for concrete, masonry and mineral substrates.

### Typical Areas of Application

- Internal & external walls of basements & cellar walls
- Lift pits
- Internal wet areas
- Podiums, terraces, external balconies & decks
- Planter boxes, garden beds & retaining walls
- Potable water tanks
- Water features & swimming pools
- Roof areas that will be covered with non-slip roof coating or other surface topping

### Advantages

- Can be applied to both vertical and horizontal surfaces
- Suitable for internal, underground, immersed and external surfaces
- Outstanding adhesion properties
- Handles positive water pressure of up to 6 bar
- Handles negative water pressure of up to 1.5 bar
- Flexible crack bridging properties up to 1mm
- Excellent resistance to the aging effects of salts and carbonation on concrete
- No primer required, bonds to dampened surfaces
- Compatible with concrete toppings, screeds, masonry renders and tile adhesives
- Approved for potable water applications
- Non-toxic

### Storage

KGM-700 can be stored unopened for 12 months, based on manufacturers batch date, in a cool, dry place below 23°C. Product pot life is approximately 60 minutes in normal ambient conditions of 23°C.

### Physical Properties

Form:	Powder - dry Cementitious slurry - wet
Colour:	Grey
Specific gravity of mixed product:	1.5kg/litre (wet density)
Elongation:	85%
Tensile strength:	>1.5MPa
28 days immersion:	>0.9MPa
After free thaw cycle:	0.74MPa
After exposure to 70°C:	0.9MPa
After caustic potash immersion: (3% solution, 40°C)	>1.09MPa
Adhesion to concrete:	>1.1Mpa
Water vapour transmission:	1.5 (SD value)
Water pressure:	1.5 bar negative pressure 6 bar positive pressure
Packaging:	15kg bag
Curing: (will vary depending on surface temperature, ambient conditions, and surface porosity)	Re-coat: 1-3 hours @ 23°C Dry film: 5-7 hours @ 23°C Exposure to water pressure: 7 days curing Immersion: 21 days curing
Clean-up:	Use water when wet; use solvent cleaners or by mechanical means when dry

### Design Criteria

All works must be carried out as per Australian Standards AS:3740-2010 "Waterproofing of Wet Areas within Residential Buildings", AS:4654.2-2012 "Waterproofing Membrane Systems for Exterior Use" and AS/NZS 4858-2004 "Wet Area Membranes".

Special consideration is needed with every application of waterproofing. For applications not listed above, please contact your nearest KGM supplier for a project specific recommendation.

## Application Instructions

- 1. Prep work** - surfaces must be made good and should be sound, stable, dry, clean and free from contaminants such as dust, loose flaking material, gypsum and substances that may diminish adhesion including oil and wax residues.
- 2. Priming** - KGM-700 must be applied onto a pre-dampened or primed surface. On porous concrete, masonry and mineral-based substrates, surfaces can be pre-wetted down with light water mist. When pre-dampening, ensure there is no ponding or surface water before membrane application. Surfaces can be damp but must not have free water present when applying membrane. KGM-525 Solvent-Free Specialty Primer can be used for non-porous, smooth and dense surfaces. Use brush or roller to apply primer to total surface area at a minimum coverage of 1 litre per 12m<sup>2</sup> and allow to dry for 1 hour.
- 3. Detailing** - A suitable bond breaker is required at all substrate junctions for positive waterproofing applications. Reinforcement fabric or bond breaker joint tape is recommended to be used at all floor/wall and wall/wall junctions, as an elastic reinforcement, unless being used over insitu concrete substances.
- 4. Membrane Coating** – The membrane is easily formed by adding the dry powder to water. Best mixing results are achieved by filling 2/3 of the required water into a mixing bucket. Ensure water is clean and free of chemical additives. Slowly add the powder to the water and using an electric stirrer with paddle attachment, stir until the mixture appears lump free. Add the final 1/3 of the required water and continue to stir until a homogenous smooth consistency of the liquid is formed. Allow the product to settle for a few minutes before lightly re-stirring. Product will then be ready to use.  
Mixing - Calculate water to powder ratio based on 180-220ml of water per kg of powder membrane, depending on required quantity to be mixed and used.  
Product can be applied by roller, brush, trowel or spray unit that can handle high build texture.

## Coverage

One 15 kg bag should be applied at a minimum of two coats. Recommended coverage will differ based on application use. Based on 0.8litres/1.2kg/m<sup>2</sup> per mm layer thickness:

- *General waterproofing (positive side)* - minimum 1.5mm dried film thickness is required.
- *Immersed applications and protective membrane coating in negative applications* - minimum 2.0mm dried film thickness is required.
- *Preventing ingress of water under pressure (negative side)* - minimum 2.5mm dried film thickness is required.

## Tiling Recommendations

It is permissible to tile, paint or acrylic render directly over KGM-700 with covering materials capable of adhering to water-based membranes. Polymer-modified cement-based tile adhesives are recommended for direct adhesion to the membrane. Acrylic or SBR bonding agents are recommended for applications of screeds and renders directly over the membrane. Please contact KGM Australia for further details.

## Limitations

- Do not apply when air temperature is below 10°C and above 30°C. Do not allow to freeze.
- Product is not designed for foot traffic as it is not a trafficable membrane.
- It should be tiled, topped or painted.
- Do not thin product in any form.

## Safety

Before using or handling materials, please read all relevant Material Safety Data Sheets (MSDS). KGM-700 is user-friendly and safe to use, however avoid contact with skin and eyes. Wear suitable gloves and eye/face protection. Product is non-flammable.

## Warranty

The seller warrants that at the time of shipment its products are free from manufacturing defects and, when applied in accordance with the current specification and application instructions, will perform as so stated in its product literature. Project specific warranties are available on request. Please consult your nearest distributor for further information.

## Product Disclaimer

The technical details, recommendations and other information contained in this data sheet are given in good faith and represent the best of our knowledge and experience at the time of printing. It is your responsibility to ensure that our products are used and handled correctly and in accordance with any applicable Australian Standard. Our instructions and recommendations are only for the uses they are intended. KGM Australia does not accept any liability either directly or indirectly for any losses suffered in connection with the use or application of the product. We also reserve the right to update information without prior notice to reflect ongoing research and development programs. The supply of our products and services is also subject to certain terms, warranties and exclusions, which may have already been disclosed to you in prior dealings or are otherwise available to you on request. You should make yourself familiar with any relevant items.

## Technical Support

For any additional information not expressed in this document, please contact us via the details below.