# **BP168** BASE PLASTER (PREMIUM)



### **PRODUCT DESCRIPTION**

**OPTIMIX BP168 BASE PLASTER (PREMIUM)** is a premium quality polymer modified mortar designed for wall rendering and levelling. Specially formulated for high strength and resilience the hardened render has excellent compressive strength, out-standing adhesion performance - even after aging and weathering – and enhanced water resistance to ensure long-term durability and stability of the render layers.

#### OPTIMIX BP168 BASE PLASTER (PREMIUM) is also

designed for use with EN12004 Class C2 adhesive requirements to ensure that the complete system from substrate to tiled surface achieves the same high standard. Excellent workability; suitable for interior or exterior application by hand or spray subject to machinery and tools.



**OPTIMIX**<sup>®</sup>

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# **TYPICAL USAGE**

- External rendering onto concrete or block work wall
- Internal walls subject to dampness
- 10 25 mm per layer

# FEATURES AND BENEFITS

- Consistent, Simple and Easy to Use
- Sprayable
- High Strength
- Low Water Absorption

- Complies with the relevant parts of ASD
  General Specification cl18.61 (2022) including
  BS8481 & EN13914
- Complies with EN998-1
- Environmentally Friendly



# **TECHNICAL DATA**

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Product Characteristics	OPTIMIX BP168
Tensile Adhesion Strength (Standard Conditions)	> 1.0 MPa
Tensile Adhesion Strength (Water Immersion)	> 1.0 MPa
Tensile Adhesion Strength (Heat Aging)	> 1.0 MPa
Tensile Adhesion Strength (Freeze-Thaw Cycle)	> 1.0 MPa
Compressive Strength at 7 days	> 25 MPa
Compressive Strength at 28 days	> 30 MPa
Slant Shear Bond Strength at 28 days	> 30 MPa
Bond Strength / Tensile Strength at 28 days	~ 3.0 MPa
Flexural Strength at 28 days	> 6.0 MPa
Initial Surface Absorption Test (ISAT) @ 60minutes (mean)	0.011 ml/m²/s
Water Retentivity	99 %
Wet Density	~ 1,900 kg/m <sup>3</sup>
Water Demand	6.2 – 7.0 liters
Thickness (Nominal Build-up)	10 – 25 mm in 1 coat
	25 – 40 mm in 2 coats
Coverage	1.65 kg/mm/m <sup>2</sup>
Pot Life at 27°C	~ 1 hour
Packaging (per bag)	40 kg
Shelf Life	12 months

Note: The above are typical laboratory test results and can vary slightly depending on the equipment, ambient and substrate conditions during application.

Testing Methods	
Tensile Adhesion Strength	BS EN 1015-12 & EN 1348
Compressive Strength	BS EN 1015-11 and/or TM-1
Flexural Strength	BS EN 1015-11
Slant Shear Bond	BS6319: Part 4: 1984
Bond Strength / Tensile Strength	TM-4 / TM-2
ISAT	BS 1881: Pt 208
VOC Content	USEPA Method 24



Note: The tests were performed according to the national standard or in-house modifications of the corresponding testing procedures.

Environmental Data	
Volatile Organic Compounds (VOC)	≤ 10 g/L
Potential BEAM points	Product is manufactured within 800km of Hong Kong project sites
Packaging Composition	Paper bags incorporating 40% recycled paper

Complied Standards		
Complies with the relevant parts of ASD General Specification cl18.61 (2022 & legacy) including:		
BS EN 8481 : 2006	Design, preparation and application of internal gypsum, cement, cement and lime plastering systems – Specification.	
BS EN 13914-1 : 2016	Design, preparation and application of external rendering and internal plastering. External rendering.	
BS EN 13914-2 : 2016	Design, preparation and application of external rendering and internal plastering. Internal plastering.	
BS EN 998-1 : 2016	Specification for mortar for masonry. Rendering and plastering mortar.	

## INSTALLATION GUIDE

(Refer to Method Statement for more details)

#### SURFACE PREPARATION

**OPTIMIX BP168** can be applied direct to a suitably sound and prepared substrate that is free from shrinkage, settlement or other significant movement.

Substrate must be clean, free from loose particles, oil, grease and other contaminants.

It is recommended to pre-wet the substrate with potable water overnight or before application if the weather or surface is under a very dry condition.

For render repairs or reinstatement **OPTIMIX BP168** can be applied onto **OPTIMIX PROCRETE** or **OPTIMIX PE** bond coat to achieve ultimate bond performance. (*Refer to the relevant datasheets for more details*)

**OPTIMIX PROCRETE** or **PE** Spatterdash mix may be used to improve the wet and tensile adhesion especially on smooth or dense substrates such as off-formed concrete.

**OPTIMIX PROCRETE** or **PE** Spatterdash can be applied within 48 hours of striking formwork, and after the surface is cleaned and allowed to become surface dry. Applied spatterdash should be allowed to harden for a minimum of 2 days and preferably 7 days or more before applying the render.

#### MIXING

#### Hand Mixing:

Mix one bag of **OPTIMIX BP168** dry powder with 6.2 - 7.0 L potable water by using an electrical forced action mixer. For easy mixing add the required amount of water to the mixer, begin mixing and add the powder and continue to mix for up to 5 minutes or until a lump-free homogenous mix is achieved. Allow the mixture to stand for 3 - 5 minutes, mix briefly again and the material is ready for use.

#### Spray Mixing:

Mix and spray the mortar simultaneously with the use of special continuous mixing and pumping equipment. Follow the pump manufacturers' instructions closely. When continuously spraying adjust the water gauge to achieve the correct workability at the nozzle.

Correctly applied material will initially appear slightly glossy, it may sag briefly and slightly during spraying, but it will exhibit virtually no rebound.

#### APPLICATION

Application thickness should be between approximately 10mm and up to around 25mm per layer. For application in excess of 25mm multiple layers are required; Initial layers should be left rough-finished as a key. Additional layers should be applied once the first layer has achieved sufficient strength to support the application, finishing and curing of subsequent layers. For maximum performance Optimix recommend an additional bond coat between the layers.

#### **FINISHING AND CURING**

Depending on application method and site conditions, OPTIMIX BP168 will remain highly workable and easy to finish for around 15 to 30 minutes; High temperatures and strong drying influences will reduce the working time. For best results, the final layer of OPTIMIX BP168 should be struck off level as soon as possible after application, while the material is at its most workable. This is especially important when spraying as surfaces will tend to dry out more quickly. Finishing the surface as soon as possible will make the job easy for the worker, ensure the best bond performance and result in the best surface finish. Finishing can be achieved using a wooden float to give a keyed surface or a steel trowel to achieve a smooth surface. For a smooth surface wait until the



surface firms up then carefully strike off using one or two passes of a trowel cleaned with a damp cloth.

Additional curing is not normally required but in instances of hot or strong drying then a traditional curing compound can be applied once the surface has hardened.

#### LIMITATIONS

Whilst no special curing treatments are recommend normally required Optimix protecting the installation from significant drying influences at least overnight and preferably longer if the site situation allows.

#### **HEALTH AND SAFETY**

**OPTIMIX BP168** is alkaline in nature and can cause irritations to persons with sensitive skin. Avoid inhalation of dust and contact with skin and eyes. Wear suitable protective gloves and masks while handling the product. If contact with eyes, rinse immediately with plenty of clean water and seek medical advice. This product is non-toxic and is not flammable.

#### **STORAGE**

Store the products in a cool and dry place with the original unopened bags on pallets with plastic wrapping. Protect from direct sunlight, rainfall and exposure to high humidity conditions. Avoid excessive stacking of pallets. Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging and reduce shelf life.

#### ALTERNATIVE PRODUCTS

Other similar products in the Optimix range include:

- BP126 Base Plaster
- BP138 Base Plaster (Waterproof)



Important Note: The information contained herein is, the best of our knowledge, true and reliable and is supported by the present state of our knowledge. No warranty is given or implied in connection with any recommendations or suggestions made by us or our representatives as the conditions of use and any labour involved are beyond our control.



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