



ENGINEERED SCREED

Fast Drying & High Strength

Westbuild Engineered Screed is a polymer modified, factory blended, cementitious high build screed suitable for internal and external applications.

Shrinkage compensated to minimise cracking, Westbuild Engineered Screed is fast drying achieving high early strength and high compressive strength and will reach strengths up to 40MPa, proving ideal for most types of floor coverings.

Advantages

Fast Drying

High Early Strength

High Compressive Strength

Shrinkage Compensated

Ready to use (Just add water)

Up to 30MPa in 4 Days and up to 40MPa when cured



Product Attributes

Uses

Recommended for **Forming screeds that are trafficable in 12 hours and completely dry in 4 days.**

For installing wood parquet.

For installing resilient flooring such as rubber, PVC, linoleum, etc.

For repairing screeds in where it is required to lay flooring within a short timeframe (e.g. high traffic supermarkets, office floors, etc.)

Substrates

Concrete Floors: Including cast, in situ and wood floated concrete. New Concrete should be at least 21 days old. (For bonded screeding, the concrete should have adequate surface profile to provide a good mechanical key. Dense concrete, greater than 35Mpa, or smooth concrete should be mechanically roughened to aid in new adhesion.)

Fibre Cement Sheets: The boards must be firmly fixed and able to support the new screed and tile bed. Boards must be fixed in accordance with manufacturer's instructions. Priming is recommended over fibre cement sheets, and the sheet joints should be taped.



- Location:** Interior and exterior.
- Performance:** Residential, commercial and industrial.
For more information on suitable substrates or substrates that are not listed above, please contact a WESTBUILD Representative.
- Colour** Grey
- Packaging** 20kg Rainproof™ bag (60 bags/pallet)
- Coverage** 20kg of Engineered Screed will cover approximately 1m² at a thickness of 10mm.
- Shelf Life & Storage** Westbuild Engineered Screed is packaged in a Westbuild Rainproof™ packaging and has an extended shelf life. The product can be stored outdoors in the original, unopened packaging.

Technical Data

Product Identity

Form Powder
Colour Grey

Application Properties

Setting Time 3 – 6 hours (depending on temperature)

Compressive Strength

(At 8% water content.)

| Test | Compressive Strength Standard Conditions (MPa) | | | |
|------|--|--------|--------|---------|
| | 1 day | 4 days | 7 days | 28 days |
| 1 | 3.68 | 32.77 | 35.43 | ± 40 |
| 2 | 3.52 | 30.56 | 33.12 | ± 40 |



Installation

Surface Preparation

Surfaces must be free from all dust, oil, grease and all loose contaminating materials.

Curing compounds, concrete sealers, any surface laitance and any foreign material should be removed from the surface prior to the commencement of any screed works.

Ensure the surface is dry prior to screeding with no residual or permanent damp. Check concrete for moisture content prior to application. (New concrete should be more than 21 days old.)

The surface must be level, structurally sound, firmly fixed and able to support all flooring systems being used.

Water Ratio

Use clean, potable water for a basic finished thickness greater than 10mm. (Required water varies depending on desired consistency.)

| | Trowellable Consistency |
|-----------------------------|--------------------------------|
| Water Addition Per 20kg Bag | ±1.6 litres |

Mixing

Westbuild Engineered Screed is factory proportioned for optimal ease of use. It is best mixed with a forced action stirrer in a clean mixing bucket, or using a rotating mixer or normal job site mixer.

For optimal ease of use, add required water to a clean mixing bucket or mixing vessel. Slowly add the required powder to the water a controlled rate whilst blending the product for 2-3 minutes to reach to a workable, semi-dry mix.

Install mixed product immediately. If the mixed screed has started to dry before placement, then under no circumstances should more water be added to the mixture as this will greatly reduce the performance of the product. The screed needs to be discarded and fresh product remixed.

Application

Westbuild Engineered Screed is suitable for both bonded and un-bonded applications, including floating applications.

Layer Thickness

| | Option 1 Bonded Application | Option 2 Un-bonded Application | Option 3 Floating Screed |
|-------------------|--|---|---|
| Layer Thickness * | Min: 10mm Max: 60mm | Min: 30mm Max: 80mm | Min: 30mm Max: 80mm |

**Layer thickness must not exceed the maximum Layer Thickness indicated in the above table within a single application. If the final thickness required is greater than stated, the Engineered Screed should be completed in layers.*

For thicknesses over 50mm, it is recommended to incorporate galvanized metal reinforcement in accordance with AS 3958.1. It is the installer's responsibility to ensure current Australian Standards are met.



Application (continued)

Option 1: Bonded Application – requires a bond or slurry coat to be applied to the slab or substrate before applying Westbuild Engineered Screed.

Step 1 – Apply a bond/slurry coat to the substrate.

Slurry Coat: Use 1 part Westbuild PRO™ Flexible Additive Fortifier & Primer : 1 part GP Cement

Apply slurry coat to the prepared substrate with a large flat brush or broom.

Step 2 – Place the Screed

Always using a “wet on wet” method, while the bond or slurry coat is still wet, place the mixed Engineered Screed onto the bond or slurry coat. (Should the bond or slurry coat skin prior to placement of Engineered Screed, completely remove and replace before continuing to install more product.)

Step 3 – Reinforce as per applicable Australian Standards

If a galvanized mesh is to be used in the screed, apply the first layer of screed, then the mesh with a second finishing layer of screed (always using a “wet on wet” method). This will ensure the mesh is directly in the middle of the screed bed for optimal performance. (Reinforcement with galvanized wire should follow applicable Australian Standards.)

Use a straight edge or timber batten to level the material and to achieve the required falls.

Option 2: Un-bonded Application – requires a film of builders plastic or damp-proof membrane (DPM) to be applied to the slab or substrate before applying Westbuild Engineered Screed.

Step 1 – Apply builder’s plastic, polyethylene film or DPM onto the substrate. Tape the joins.

Step 2 – Place the Screed

Place the pre-mixed Engineered Screed directly onto the plastic.

Step 3 – Reinforce as per applicable Australian Standards

If a galvanized mesh is to be used in the screed, apply the first layer of screed, then the mesh with a second finishing layer of screed (always maintaining a “wet on wet” method). This will ensure the mesh is directly in the middle of the screed bed for optimal performance. (Reinforcement with galvanized wire should follow applicable Australian Standards.)

Use a straight edge or timber batten to level the material and to achieve the required falls.

Option 3: Floating Screed – to be laid over underfloor insulation or heating systems, prepare and apply the floating screed following the above directions “Option 2: Un-bonded Application”, whilst ensuring the following conditions are met:

- Underfloor insulation should have a high resistance to compression and not depress more than 3mm under the expected final load, including the weight of the screed.
- Underfloor heating pipes should be located a minimum of 35mm below the surface of the floating screed. Reinforcing mesh should be placed over the pipes. Wait a 4 full days after screed installation before commissioning heating.



Pot Life

10 minutes (@ 20°C ambient temperature). The time the product can be placed depends on the product temperature and the amount of mixing water added.

The pot life above should be regarded as a guideline. The lower the temperature the longer the setting time.

The addition of water to the Engineered Screed after it has started to stiffen is not recommended and the product should be discarded.

Application Temperature

| | | |
|--|---|------|
| Temperature | Minimum | 5°C |
| | Maximum | 35°C |
| Low Temperature Application | High Temperature Application | |
| In cold conditions down to 5°C, normal precautions for winter working with cementitious materials should be adopted. The material should not be applied when the substrates or air temperature is below 5°C. | At temperatures above 35°C, the material should not be used as this will cause premature setting and may make applying the product difficult. | |

Drying Time

Under normal conditions, the screed is trafficable after 24 hours with an initial setting time of approximately 3 - 4 hours. Allow a minimum of 4 days for the screed to dry before tiling or waterproofing.

Clean up

All tools should be cleaned immediately whilst the screed mix is still wet.

Attention

Engineered Screed is designed to be covered with suitable floor coverings and should not be left uncovered or exposed for long periods of time.

Not suitable for permanent immersion or use in permanently damp or wet conditions.

Not designed as a wearing course.

Do not use on slabs or substrates with high moisture content, or where rising damp is possible. Check concrete for moisture content prior to application. New concrete should be more than 21 days old.

Do not apply in layers less than 10mm for bonded applications or less than 30mm for un-bonded/floating applications.

Do not apply in layers greater than 80mm in thick.

Do not over water when mixing the screed as the product is best used when mixed in a semi dry form.

Movement/expansion joints should be provided as per the current Australian Standards as at the time of tile installation. Movement joints should go right through the tile adhesive bed to the background and be kept free from dirt and excess adhesive.

Excessive moisture loss should be prevented whilst curing.



Plan ahead to ensure continuous placement within a single pour.

Efflorescence in cement-based materials is beyond the control of the manufacturer.

For external screeding, always protect the area from direct sunlight and wind whilst the screed is drying.

Do not apply in temperatures above 35 degrees Celsius.

For other uses, in situations not mentioned on the product packaging, or technical papers, please contact WESTBUILD for further advice.

Risk

All cement-based products are alkaline and can cause irritation. This product is considered hazardous according to criteria of Work Safe Australia. A dust mask should be worn when handling the material in its dry form. Continuous or extended contact with this product may cause irritation, as well as respiratory issues such as bronchitis or silicosis. Contact with the eyes and repeated and prolonged skin contact should be avoided. Refer to the product SDS for full product details, available on the Westbuild website.

Safety Precautions

A dust mask should be worn when handling the material. Contact with the eyes and repeated and prolonged skin contact should be avoided.

Technical/Safety Data

TECHNICAL DATA SHEETS (TDS) AND SAFETY DATA SHEETS (SDS) are available on request and should always be referenced before handling this product and before the commencement of any works. A WESTBUILD Representative is always available should you require further information. Visit our website for further information on the use of this product and suitability for your application.

Guarantee

WESTBUILD Products Pty Ltd guarantees this product for 10 years after the project completion date subject to terms and conditions. The product must be used for the purpose intended and all works must be to the applicable Australian standards at the time of use. Please refer to WESTBUILD'S full guarantee documentation available on request.

Related Products

Westbuild PRO™ Flexible Additive Fortifier & Primer
Westbuild Easy Screed
Westbuild General Purpose Cement

It is the responsibility of the user to ensure that products are used in accordance with the Westbuild Products Pty Ltd instructions for use, and Australian Standard procedures in applications for which they are intended. Westbuild Products Pty Ltd and its associated companies cannot guarantee and are not liable for the use of their products outside of Australian Standards guidelines and the Westbuild Products Pty Ltd instructions for use. The technical details and recommendations contained in this data sheet are given in good faith and represent the best of our knowledge at time of printing. Freedom from patent restrictions should not be assumed.

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