

Flexement

Submersible Waterproofing Cement Additive

Duram Flexement is a submersible waterproofing cement additive to improve the water resistance, adhesion, tensile strength and flexibility of cement. Ideal for showers, balcony and patio floors, fish ponds and retaining walls.



PRODUCT USES

- For interior or exterior use.
- **Waterproofs cementitious substrates including:**
 - Waterproofing slurry.
 - Bonding and bagging slurry.
 - Screeds and plastering.
 - Tile adhesive and grouting.
 - Crack and joint filler.
- **Waterproof a variety of application areas:**
 - Shower floors & walls.
 - Under floor tiles of balconies, patios, verandas and stoeps.
 - Reservoirs, dams, fish ponds and water features.
 - Retaining walls, foundation walls and other subterranean waterproofing.
 - Between two skins of external brick walling.
 - Silos, water troughs, irrigation channels and furrows.
 - Flat roofs.
 - Planter boxes.
 - Permanently wet areas.
 - Can be used with *Duram Flexemesh* membrane to waterproof slurries and bridge cracks.



ADVANTAGES

- Waterproofs cementitious substrates
- Withstands permanent immersion in water.
- Excellent adhesion, tensile strength and flexibility.
- Versatile and easy to use - simply mix with cement.
- Hydrophobic formula creating a watertight solution.
- Reduces shrinkage and cracking (during the hardening and curing process).
- Resists substrate movement.
- Improves the bonding and adhesion of screeds and skimcoats.
- UV- and weather-resistant.
- Good abrasion resistance.
- Help reduce rising damp on exterior plaster.
- Reduces porosity of screeds resulting in less sealer required.
- Non-toxic.
- Water-based - water clean up.



COVERAGE

- Waterproofing slurry with *Duram Flexemesh* membrane: 4 coats @ 1 m²/litre per coat.
- Bonding & bagging slurry: 1 coat @ 6 - 8 m²/litre per coat.



SURFACE PREPARATION

Ensure all substrates are thoroughly clean, sound, cured and free from any contaminants such as dirt, salt, algae, fungi, oil and grease. Remove loose material completely with a wire brush, sandpaper or high pressure cleaner. Repair damaged surfaces to a sound condition before coating.



MIXING AND APPLICATION

WATERPROOFING SLURRY

Mixing: Referring to the mixing ratios table, mix the *Duram Flexement* with the water first. Then slowly add the required amount of Portland cement, stirring continuously to prevent the formation of lumps until a paste of uniform consistency is produced. A slow speed mixer (set at 400-600rpm) is recommended for quantities of 5 litres of *Flexement* or more. To prevent settling, the mixture should be stirred periodically during use.

INGREDIENTS	MIXING RATIO		
Flexement	1 litre	5 litres	25 litres
Water	1 litre	5 litres	25 litres
Portland Cement	3,4 Kg	17 Kg	85 Kg
Produced Volume	3 litres	15 litres	75 litres

Application with *Duram Flexemesh*: Saturate the substrate thoroughly with clean water. Apply a generous priming coat of the waterproofing slurry onto the damp surface. Soak the *Flexemesh* membrane in the waterproofing slurry to obtain maximum saturation, and immediately lay it onto the primed substrate. The saturated membrane should overlap by 50mm on all joints. Press out any air pockets and creases in the *Flexemesh*. Apply 2 further coats of the waterproofing slurry, allowing to dry between coats.

BONDING & BAGGING SLURRY

Mixing: Mix the *Duram Flexement* and water in equal proportions by volume. Separately, mix clean building sand with Portland cement in equal proportions by volume. Then slowly add the sand/cement mixture to the diluted *Flexement*/water mixture. Continue mixing until a uniform, lump-free paste is obtained. To prevent settling, the mixture should be stirred periodically during use.

Application: Saturate the substrate thoroughly with clean water. Apply a generous coat of the slurry using a block brush onto the damp surface.

For Bonding: Immediately apply the screed while the slurry is still wet.

SCREEDS & PLASTERING

Mixing: Replace 50% of the water specified in the cement instructions with *Duram Flexement*. Mix the water and *Flexement* together. Separately, mix clean building/plastering sand with Portland cement according to your required proportions. Then slowly add the diluted *Flexement*/water mixture to the sand/cement mixture. Continue mixing until a uniform, lump-free consistency is obtained.

Application: Apply screed or plaster as required.

TILE ADHESIVE & GROUTING

Mixing: Replace 50% of the water specified in the tile adhesive or grouting instructions with *Duram Flexement*. Mix the water and *Flexement* together. Then slowly add the diluted *Flexement*/water mixture to the tile adhesive or grouting as per manufacturer's instructions until a uniform, lump-free consistency is obtained.

Application: Apply tile adhesive and grouting as per manufacturer's instructions.

CRACK & JOINT FILLER

Mixing: For maximum flexibility, replace all the water with undiluted *Duram Flexement*. Mix the *Flexement* to the cement until a uniform, lump-free consistency is obtained.

Application: Apply the crack and joint filler as per manufacturer's instructions.

CURING

Protect from direct sunlight and wind for 24 hours after application to prevent cracking. Protect from damp, condensation and water for at least 12 hours. Observe normal dew point precautions. Where the application will be permanently immersed in water, allow 72 hours to cure. Flush well with fresh water before filling. A water test is recommended for sensitive fish.



CLEANING

- **Uncured:** Water clean up
- **Cured:** Remove mechanically



IMPORTANT

- Call our Technical Helpline or visit duram.co.za for queries and updated Datasheets and Material Safety Datasheets.
- Take care when lifting and carrying. In transit, keep tightly closed in a secure upright position.
- Whilst every care is taken in manufacture, no warranty is given relating to use.
- Use only with *Duram Flexemesh* membrane – do not use with *Duram Duramesh* membrane.
- Use with Cem I 52.5R or N high strength cement for best results.
- Professional applicators are recommended for large or sensitive application areas.

- Do not apply on substrate where significant vapour pressure may occur.
- Do not apply outside if rain is expected. Apply when ambient and surface temperatures are 5°C to 35°C.
- Keep cool and protect against freezing. Keep container closed when not in use.
- Donate unwanted product. Dispose contents responsibly - do not empty into drains or watercourses. Recycle empty container.



SAFETY PRECAUTIONS

- **Duram Flexement** is water-based and is generally safe to use.
- Keep out of reach of children.
- Wear protective gloves and eye protection.
- Take off all contaminated clothing immediately.
- If swallowed: Immediately call a poison centre / doctor.
- If on skin: Wash with plenty of soap and water.
- Use in a well-ventilated area. If experiencing respiratory symptoms: Move person to fresh air. Call a doctor.
- If in eyes: Rinse with water.



SUPPORTING PRODUCTS



Duram
Flexemesh



YOU MAY ALSO NEED

- Portland cement, building sand, plastering sand and Cem I 52.5R or N.
- Tile adhesive or grouting.
- Anti-fungal wash.
- High Pressure Cleaner.
- Paper towel and cloths.
- Wire brush, sandpaper or steel wool.
- Drop sheets.
- Ladder.
- Appropriate filler and putty knife.
- Paint scraper.
- Paint stirrer, flat paddle or slow speed mixer.
- Protective gloves and eye protection.
- Block brush and trowel.
- Additional utensils/products may be required in the preparation of surfaces.



TECHNICAL DATA

Pack Size	1L, 5L, 25L	Toxicity	Non-Toxic when dry
Service Temperature	20°C to 100°C	Fire Hazard	Non-flammable
Substrate Temperature	5°C to 35°C	Cleaner	Water when wet
U.V Resistance	Excellent	Shelf life	2 Year in unopened container
Abrasion Resistance	Excellent	Storage	Cool dry place
Density	1,1g/cm ³		

Technical details above are provided in good faith. We believe in the quality of our products and will willingly replace any product in the unlikely event of a quality related performance failure. Whilst we are confident in guaranteeing the quality of our products, we cannot however accept any liability for performance failure due to the incorrect application of our products. Correct application is critical to the successful performance of our products and as this process falls outside of our control we are unable to cover the application under our product performance warranty. Where there are doubts, it is recommended that the user conduct their own suitability tests before use. To retain sheen and colour consistency of your paint, always make sure that the batch numbers are the same on all paint containers that you purchase.

Updated February 2021 (this supercedes all previous publications)