

## PRODUCT DESCRIPTION

Waterproofing Systems has a variety of liquid membranes in its duro™ range, as shown in Table 1. These are used in a variety of internal and external waterproofing applications, including:

- Internal wet areas.
- Below tile waterproofing.
- Decks and balconies.
- Podiums.
- Trafficable decks.
- Swimming pools, ponds, water-features.
- Masonry window flashing.
- Acoustic applications.

**TABLE 1: OVERVIEW OF THE DURO™ RANGE**

### duroSET® membrane

*Application* Under tiles, bathrooms, decks, podiums, acoustic applications (used in conjunction with duroMAT™).

*Substrates* Plywood, concrete, compressed sheets.

*Reinforcements* RF Fabric, butylFLASH™ P or Elastofabrics (plywood sheet joints and upstands only).

### duroQIK® quick curing membrane

*Application* Under tiles, bathrooms, decks, podiums, swimming pools, water features, masonry windows. Used as an alternative to duroSET® where tiling in 24 hours is required, or in cool conditions.

*Substrates* Plywood, concrete, compressed sheets.

*Reinforcements* RF Fabric, butylFLASH™ P or Elastofabrics (plywood sheet joints and upstands only).

### duroTUF® acrylic hi-build membrane

*Application* Roofs, trafficable decks, exterior coatings.

*Substrates* Plywood, concrete, compressed sheets, plaster.

*Reinforcements* RF Fabric, butylFLASH™ P or Elastofabrics to plywood joints and upstands, Chopped Strand Fibre to body coat (decks only).

### duroMAT™ acoustic system

*Application* Under tiles, bathrooms, decks

*Substrates* Plywood, concrete, compressed sheets.

*Reinforcements* RF Fabric, butylFLASH™ P or Elastofabrics (plywood sheet joints and upstands only).

## DUROQIK® FAST CURING MEMBRANE SYSTEM

duroQIK® is a quick drying two-part liquid latex membrane designed for use in a range of internal and external waterproofing applications. It is specifically designed to provide a seamless waterproof membrane on building substrates before tiles or other suitable finishes/toppings are applied. The cured membrane withstands ponding water, and can be used in continuously immersed situations such as swimming pools.

duroQIK® comprises a 15 litre pail of latex liquid membrane, mixed with an 18.75kg bag of duroMIX® powder.

### UNIQUE BENEFITS OF DUROQIK®

#### 1. Toughness

As duroQIK® is a flexible cementitious membrane, it can handle construction 'traffic'. We recommend installing the first coat to provide temporary waterproofing then once the construction works have finished the second coat (and third coat if required) can be installed.

#### 2. Compatible with tile finishes and other toppings

Screeds, renders or concrete toppings can be applied directly over the product, as well as other floor/wall coatings or finishes including acrylic paint. Able to be tiled directly over with suitable tile adhesives. The duroFIX® tile adhesive is recommended as part of the BRANZ Appraised systems.

#### 3. Reliable Quick Curing

As duroQIK® is a two part membrane, the membrane cures more reliably in a wide variety of climatic conditions. duroQIK® has been successfully used in temperatures as low as 2°C. It is important however, that the substrate be frost free.

#### 4. Tile After 24 Hours

Tiles can be installed over duroQIK® after 24 hours. This is a real advantage to construction managers who are often under pressure to meet construction programmes.

## WATERBASED AND ENVIRONMENTALLY FRIENDLY

The duro™ range of liquid membranes are waterbased, environmentally friendly, and are free from solvents, toxins and dangerous odours. Clean-up can be done simply with water while the product is still wet.

# Introduction

## DUROSET® LIQUID RUBBER MEMBRANE SYSTEM

duroSET® is a one part liquid rubber membrane designed for use in a range of internal and external waterproofing applications.

The duroSET® membrane is waterbased, durable, flexible and elastomeric. It is specifically designed to provide a seamless waterproof membrane on building substrates before tiles or other suitable finishes/toppings are applied.

Supplied in 20 litre plastic pails.

### BENEFITS OF DUROSET®

- 1. Flexible & Elastomeric**  
The cured film demonstrates excellent flexibility and elastomeric properties which accommodates normal substrate movement.
- 2. Compatible with tile finishes and other toppings**  
Screeds, renders or concrete toppings can be applied directly over the product, as well as other floor/wall coatings or finishes including acrylic paint. Able to be tiled directly over with suitable tile adhesives. The duroFIX® tile adhesive is recommended as part of the BRANZ Appraised systems.
- 3. Durable**  
The cured membrane is tough and durable, while remaining flexible.

## DUROTUF® TRAFFICABLE DECK SYSTEM

The duroTUF® system is a high-solids elastomeric hi-build acrylic coating system used in a variety of exposed trafficable deck and external coating applications.

The trafficable deck system requires a body coat (reinforced), a top coat and then a wear coat. The wear coat contains a fine silica sand to improve the hardness of the membrane to give a more resilient surface.

duroTUF® is supplied in 20 litre pails and is available in white or grey, or can be tinted to a specific pastel colour requirement.

### BENEFITS OF DUROTUF®

- 1. Trafficable**  
duroTUF®, when reinforced and the wear coat applied, is a high quality trafficable membrane. In applications where the level of traffic is high, additional durability can be obtained by increasing the application rate and including an additional layer of reinforcement.
- 2. High Solids Content**  
duroTUF® has a very high solids content. This makes it easy to achieve the film thickness required to provide a completely waterproof and elastomeric barrier.
- 3. Seamless Finish**  
duroTUF® is an excellent exposed membrane which displays a seamless finish..

## DUROMAT™ ACOUSTIC SYSTEM

duroMAT™ is an acoustic cork underlay that is used in association with the butylFLASH™ and duroSET® waterproofing membrane. duroMAT™ is used where an acoustic rating is required. Independent engineer reports show the duroMAT™ provides Field Impact Insulation Class (FIIC) rates of 52-57 in field acoustic tests (ASTM E989).

duroMAT™ tiles are 9mm x 915mm x 610mm in dimension with 33 tiles per carton.

### DURABILITY

When fixed according to specification, the duro™ systems will meet the NZBC B2.3.1 (b) requirements of 15 year durability. In trafficable deck situations, depending on the level and nature of traffic, a re-coat of the duroTUF® membrane may be required every 5-7 years.

The durability opinion given by BRANZ for the duroSET® and duroQIK® system states that when subjected to normal conditions of environment and use, the systems are expected to have a service life of at least 15 years.

### PLEASE ALSO REFER TO:

- BRANZ Appraisal Certificate 469 (2005) duroSET® and duroQIK® External Waterproofing Membranes.
- BRANZ Appraisal Certificate 470 (2005) duroSET® and duroQIK® Wet Area Membranes.
- Dept. Building & Housing Acceptable Solution E2/AS1, 3rd edition dated July 2005.

## MATERIAL SPECIFICATIONS

	<i>duroSET®</i>	<i>duroQIK®</i>	<i>duroTUF®</i>
Appearance	<i>Light beige viscous liquid</i>	<i>Grey viscous liquid</i>	<i>White/grey viscous liquid</i>
Specific gravity	1.2kg/litre	1.45kg/litre	1.3kg/litre
Tensile strength	1.8 MPa	1.8 MPa	2900N/cm <sup>2</sup> (ASTM D412)
Shore A hardness	55 (ASTM D2240-97)	90 (ASTM D2240-97)	>74 (ASTM D2240-97)
Elongation at break	435%	200% (AS1145-1989)	550% (ASTM D412)
Water absorption	1.8% (AS121 AppK)	4% (AS121 AppK)	-
Water vapour transmission	6.7g/24h/m <sup>2</sup> (ASTM E 96-95)	6.7g/24h/m <sup>2</sup> (ASTM E 96-95)	16g/24h/m <sup>2</sup> (ASTM E 96-95)
Movement cyclic test	Passed	Passed	>2mm
Solid Content	-	-	65 (+/-) % (ASTM D1076)
Dry peel adhesion	-	-	65lbs/sq. in (ASTM C297)
UV resistance - 10,000 hrs	-	-	No deterioration (ASTM D822)

## OTHER PRODUCTS USED IN THE DURO™ SYSTEMS

### PRIMERS

#### GP PRIMER

A waterbased, fast-drying, single part primer and waterproof bonding agent; designed for optimum adhesion of waterbased membranes to a variety of substrates, including plywood, concrete, villaboard, and compressed sheets.

Supplied in 20ltr plastic pails, GP Primer can be applied at a rate of 8-10m<sup>2</sup>/ltr, or on porous substrates at 6-8m<sup>2</sup>/ltr.

#### 11Y PRIMER ADDITIVE

A specialised primer slurry used for immersed areas, porous and non-porous surfaces. Always used with raw cement and silica sand to form a specialist slurry, or mixed with duroMIX® to form a cementitious thin plaster-type screed.

Available in 20ltr plastic pails.

### REINFORCEMENTS

#### RF FABRIC

A polypropylene material available in 100mm and 200mm tapes for reinforcing plywood joints, upstands and detailing corners and penetrations. Available in 100m rolls.

#### BUTYLFLASH™ P

A butyl rubber-based membrane with excellent adhesive and waterproofing properties. Available in 100mm x 10m rolls for underflashing (as an alternative EF fabric) or in 1m x 20m rolls used in the duroMAT™ acoustic system.

#### ELASTOFABRIC

Elastofabric tapes and preformed corners are an exciting range of flexible reinforcements which provide a variety of reinforcement options for areas where movement is possible.

Elastomeric bond-breaker tapes for expansion joints and high movement areas (such as floor to wall junctions) are available in 120mm x 10m lengths and in pre-formed internal and external corners.

The Elastofabric range forms part of the BRANZ Appraised systems.

#### CHOPPED STRAND FIBRE

Used to fully reinforce duroTUF® in exposed trafficable deck applications. It comes as a 230gsm fiberglass matt in 1m wide rolls.

# Introduction

## TILE ADHESIVES

### DUROFIX® TILE ADHESIVE

A premium grade ceramic tile adhesive for use in high performance applications over internal and external walls and floors. duroFIX® is a polymer modified cement-based tile adhesive that displays exceptional bonding properties, water resistance, and impact resistance. duroFIX® also has the flexibility to accommodate shrinkage movement associated with early age concrete, renders and screeds.

Using a 6mm notch trowel: approx 15-16m<sup>2</sup> from a 20kg bag.

Using a 10mm notch trowel: approx 8-10m<sup>2</sup> from a 20kg bag.

For uneven surfaces, coverage rates may vary.

#### DUROFIX® MATERIAL SPECIFICATIONS

Appearance	Off white/light grey powder
Bulk/Density	1.25kg/litre
At 20°C and 50% relative humidity	
Open time	30 minutes
Pot life	2 hours
Setting time	12 hours
Sagging	None
Adjustable time	45 minutes
Tensile adhesion strength	0.7 MPa
After heat ageing	0.7 MPa
After freeze thaw cycle	0.6 MPa

### DUROBOND™ TILE ADHESIVE

A two-part tile adhesive designed for use in immersed tiling applications, such as swimming pools, ponds and waterfeatures.

#### DUROBOND® MATERIAL SPECIFICATIONS

Appearance	Off white/light grey powder
Bulk/Density	
At 20°C and 50% relative humidity	
Open time	
Pot life	
Setting time	
Sagging	
Adjustable time	
Tensile adhesion strength	
After heat ageing	
After freeze thaw cycle	

## MISCELLANEOUS ITEMS

### GRIPSET 51

A waterbased liquid bitumen rubber membrane used with duroMIX® to form a variety of screeds. Supplied in a 20ltr pails.

### DUROGLAZE

Waterbased glaze coat used to protect the duroTUF® trafficable deck membrane and give an easy clean surface. Available in 20ltr plastic pails.

### EF POLYURETHANE SEALANT

A fast-curing PU sealant for general sealing work on decks, bathrooms and tiling situations. Available in 600ml sausages, EF Polyurethane Sealant is used in plywood sheet joints, floor-to-wall junctions and around drains.

### DUROMIX®

A premium grade cement based compound used as the Part B component of duroQIK®. It can also be used with 11Y primer or Gripset 51 to form a variety of screeds. Supplied in 18.75kg bags.

### GRIPSET RD

A high-solids elastomeric hi-build acrylic coating. Used to provide UV protection to duroSET® and duroQIK® membranes. Available in 20ltr plastic pails and comes in white only.