Optima COATINGS

# DATA SHEET

*WATERPROOFING*

# DURATOP BITUTHANE

Optima Coating's DURATOP BITUTHANEis a single component, double layer, seamless, polyurethane and bitumen waterproofing coating. It allows the fast creation of a thick waterproofing film that accepts topcoats and has the strength and flexibility of urethane coupled with the water and chemical resistance of bitumen.

**Colour: Dark Brown to Black**

## PRODUCT USES

**DURATOP BITUTHANE** is used as the waterproofing material of choice in:

- Reservoirs and dams
- Damp proof courses in building applications
- Below grade retaining walls and basements.
- Roof joins and screws
- Flat roofs and balconies
- Water tanks and water storage facilities
- Coating of bunding in chemical plants.
- All DIY waterproofing jobs

**DURATOP BITUTHANE** should be applied at 0.8 to 1.2mm thick in two coats, depending on the service and life required.

## ADVANTAGES

- Fast application/rapid access- 3 hours before overcoating.
- Short curing time and 12-hour access to foot traffic
- non-tainting, no smell, no brown bleed-through of water stored
- Durable/long life- Wide chemical resistance, wear and impact resistance, resists temperatures from -40ºC to 80ºC.
- Single component.
- Adhesion to most substrates.

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## COVERAGE

As porosity and texture of concrete floors vary considerably, it is not possible to quote accurate coverage rates, but the following will provide a guide:

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| Theoretical requirement for 1mm film thickness: | 1.6 $m^2$ per litre per coat applied twice |
| DFT (dry film thickness): | 500 microns per coat and two coats at 1mm required |
| Volume solids: | 78% |

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| FEATURES | BENEFITS |
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| Thermal stability | limited bacterial growth on cracks |
| Low VOC content | ease of application |
| Low odour | environment-friendly, use in confined areas |
| Priming or sealing of substrate | priming may be required- substrate dependent |
| Fast cure | limited downtime, trafficable after 12 hours |
| Chemical resistance | resists organic and inorganic acids, bases and salts |
| Unaffected by freeze/thaw cycles | resists cracking due to thermal cycling |
| Wide in-service temperature range | stable from –40ºC to +80ºC |
| Impact resistance | remains undamaged in offloading areas |
| High bond strength | adheres to most substrates with limited preparation |
| Abrasion resistant | suitable for low traffic areas |

## SURFACE PREPARATION

- Surfaces to be waterproofed must be clean, sound, dry (less than 10% moisture content where applicable) and free of all surface contamination such as form release agents, curing compounds, oil, grease and dust. Damage to the substrate must first be repaired.
- Remove any sharp protrusions that may damage the Optima Coatings DURATOP BITUTHANE coating.
- Cementitious and brick surfaces: Prime with a coat of Optima Coatings Duratop Universal Epoxy Primer or Duratop Primer WB. Apply DURATOP BITUTHANE when the Duratop Primer WB is touch dry (approx. 3-4 hours), but for best adhesion do not allow the primer to hard cure (24 hours). Concrete surfaces with air holes should be adequately bagged.
- Aluminium: Freshly roughened surfaces must be primed with a two component aluminium primer such Duratop 2K Primer as per manufacturer's instructions.
- Fibre-glass: Unweatheredfibre-glass and gelcoats must be sanded to remove all gloss and wiped with a solvent. Then apply DURATOP BITUTHANE direct.
- New galvanized iron: Clean surface with a suitable galvanized iron cleaner according to instructions. Rinse thoroughly with water and allow to dry. Apply a suitable galvanized iron primer such as Opti Prime Aqua and allow to dry.
- New steel: Remove any surface rust or mill scale by sanding or wire brushing. Rinse with xylene or lacquer thinners to remove sanding dust and any oils or grease. Allow to dry. Apply DURATOP BITUTHANE directly.
- Expansion joints and cracks: A high quality joint sealant should be applied to expansion joints and cracks exceeding 15mm.
- Wood: Abrade with a scouring pad or medium grit sandpaper and clean the surface. Wood must be dry or sealed before applying DURATOP BITUTHANE directly.
- Plastics: Abrade with a scouring pad or medium grit sandpaper and clean the surface. Apply DURATOP BITUTHANE directly.

## APPLICATION

Do not apply Optima CoatingsDURATOP BITUTHANE if the surface is damp or if rain is expected.
Do not applyDURATOP BITUTHANE directly over bituminous sealers without first applying a coat of Optima Coatings Duratop Universal Epoxy Primer to avoid solvent attack. Duratop Universal Epoxy Primer is not necessary for acrylic-bound bituminous sealers.
StirDURATOP BITUTHANE vigorously for a few minutes which will thin the compound.
Do not dilute.
Apply by brush, airless spray or roller to a clean, firm, dry, prepared surface.
Apply first coatDURATOP BITUTHANE to prepared surface.
Allow to dry for 3-4hours and then apply a second coat before 24 hours have elapsed.
On structural corners, upstands, cracks, full bores and imperfections, a reinforcing membrane, Opti Re-Inforcing Membrane should be embedded into the first wet coat.
Partly used cans may be stored for short periods and should be tightly sealed and stored upside down.
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## CLEANING

- Hands and equipment can easily be cleaned with xylene after the drying time but before final cure.
- Acetone can also be used for cleaning but not for dilution.

Use hot soapy water to clean the coating.

## IMPORTANT

- Do not clean surfaces with lacquer thinners or other alcohol-containing solvents.
- On substrates likely to exhibit outgassing apply during falling ambient and substrate temperatures. If applied during rising temperatures 'pin holing' may occur from rising air.
- Do not apply close to air intake vents or near running air conditioning units.

- Areas with high movement, irregular substrates, cracks, expansion joints, parapet walls, vertical wall/floor joints, drainage areas, roofing attachment areas require a complete layer of Opti Re-inforcing membrane embedded in the first coat of DURATOP BITUTHANE.
- Do not thin with any solvent containing water or alcohols. Xylene is recommended as an appropriate thinning agent.
  Protect DURATOP BITUTHANEfrom moisture and do not expose unopened cans to temperatures above 50°C.

## SAFETY PRECAUTIONS

- DURATOP BITUTHANEis highly flammable in its wet state due to its solvent content. Use extinguishing powder, CO2 or halogens to extinguish in case of emergency.
- Remove any overspray immediately; DURATOP BITUTHANEis very difficult to remove once cured.
- Ensure good ventilation to prevent build-up of flammable solvents.
- Wear goggles and rubber gloves. DURATOP BITUTHANEbonds to the skin and can only be removed with a pumice stone.
- Skin contact: Wash thoroughly with soap and water.
- Eye contact: Flush immediately with water for 10 – 15 minutes and contact a physician.
- Respiratory problems: Remove affected person to fresh air immediately and contact a physician.
- Not for internal consumption.
  If swallowed, contact a doctor or poison control centre immediately. Do not induce vomiting. Drink water.

## TECHNICAL DATA

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| Pack size | 5L and 20L |
| Recommended application thickness: | 0.8 – 1.0 mm |
| Theoretical requirement for 1mm film thickness: | 1.6 $m^2$ per litre. Applied in two coats its 0.8 m2 per litre for the two applied coats |
| Recommended material temperatures: | minimum +10$^0$C, maximum +25$^0$C |
| Recommended substrate temperatures: | minimum +10$^0$C, maximum +35$^0$C<br>(Cure time is temperature, humidity and film thickness dependent.) |
| SG Density: | 1.025 |
| Viscosity: | 18 000 cps +- 2000 |
| Water Absorption: | 1, 5% |
| Tensile Strength: | 12 Mpa |
| Elongation: | 300% |
| Service Temperature: | -44°C to + 80°C |
| Hydrostatic Pressure: | Greater than 70 kpa |
| Overcoat after: | 3 hours |
| Light traffic after: | 12 hours |
| Full traffic after: | 2-3 days |
| Full cure (chemical) | 5-7 days |
| Shelf life | Correctly stored product will last a minimum of12 months |

*Technical advice as above is provided in good faith. We are an ISO 9001: 2008 registered company and our products are manufactured to the highest standards using raw materials of superior quality. Consequently 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.*

*DISTRIBUTED BY: OPTIMA COATINGS (PTY) LTD*

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