



VIROTUFF

ENVIRONMENTALLY FRIENDLY, ANTI-SLIP COATING

DESCRIPTION

Duram Virotuff is a water based, environmentally friendly, Tuff, durable, single pack, liquid applied, urethane / polymer, UV resistant anti - slip protective coating.

Virotuff incorporates special composite 'non-sharp' aggregates to provide good traction against slip falls but also a pleasant underfoot feel, even with bare feet.

Virotuff provides a tough, abrasion resistant, semi-flexible trafficable coating in an attractive textured finish - all in one can.

Virotuff is a slip resistant floor protective coating for foot and light vehicular traffic. **Virotuff** is available in a range of colours.

Virotuff has very low VOCs and meets the 'Green Star' environmental criteria.

USES

Virotuff has been formulated for application to in-door and outdoor areas where an anti-slip coating is required. Although too numerous to list some areas and applications include:

- **Domestic & Recreational:** Decks, balconies, patios, garages, steps, stairs, entertaining areas, pool surrounds and driveways.
- **Schools, Parks & Public Areas:** Playgrounds, demountable classrooms, walkways, toilets and washrooms.
- **Hospitality:** Kitchen areas, bar areas and storerooms.
- **Building & Construction:** Anti-slip flooring, trafficable walkways, plant rooms, steps, stairs, safety zones, decks, balconies, patios, equipment platforms.
- **Industrial Areas:** Safety work areas, factory & warehouse floors, work platforms and storerooms.
- **Marine:** Boat decks, trailers, pontoons and marinas.
- **Agriculture & Farming:** Agriculture equipment, cherry picker platforms.
- **Automotive & Rail:** Load areas of utes, trucks, vans, buses and stone damage protection for caravans and other vehicles.

SUITABLE SURFACES

Virotuff is suitable for most properly prepared and primed and generally porous substrates including:

- Porous concrete
- Cement render
- Cementitious levelling compounds
- Brick
- Block work
- Masonry
- Timber including plywood and particle board,
- FC and CFC sheeting
- Porous tiles (excluding vitrified, non-porous and glazed tiles)
- Metal etch primed metal
- Soundly painted surfaces

Apply test areas to all surfaces and in particular doubtful surfaces.

Advice from Duram should be sort for the most appropriate priming method for these surfaces; Duram has a recommended system for all of the above.

***Note:** Particle Board is not regarded as a suitable substrate for wet areas and particularly shower recesses and should be replaced with CFC sheeting. As a minimum, Particle Board should be sealed with one to two coats of **Duram Primeseal MC**. All joins and corners must be sealed with a polyurethane sealant and a reinforced fabric used in conjunction with the membrane. Surfaces must be made good and should be sound, stable, dry, clean and free of dirt, dust and contaminants and suitably primed.

ADDITIONAL USES

Topcoat over **Azcothane** Range.

SPECIFICATION

The information contained in this product data sheet is typical but does not constitute a full specification as conditions and specific requirements may vary from project to project. The instructions should be considered as a minimum requirement, but the applicator or contractor must use their skill, knowledge, and experience to carry out additional works as may be necessary to meet the requirements of the project. Specification for specific projects should be sought from the Company in writing.

LIMITATIONS

- **Virotoff** relies on the texture of the aggregate bound within the coat. Therefore, a buildup of fatty or greasy substances and grime will diminish or negate the products effectiveness and it is not recommended that it be used in these areas.
- **Virotoff** should be regarded as a general-purpose anti-slip coating and is not intended for areas demanding high anti-slip such as wet ramps, fat or oil build up, slippery footwear. Test areas should be applied and tested. The Company makes no claim as to the suitability of the product for these areas and user assumes all risk.
- It is essential that the product be kept clean and free of dirt and grime build-up. Chemical spills must be cleaned immediately.
- The way the product is applied will affect the degree of 'anti-slip'. Further, applied with a roller or applied too thick or patchy will reduce the ant-slip properties.
- The product must not be regarded as a waterproofing membrane but can be used as a trafficable topcoat over water based waterproofing membranes such as **Duram Azcothane** range, **Duram Durabit** range.
- **Virotoff** is semi-flexible and may not bridge live cracks, expansion joints, joints and gaps.
- **Virotoff**, being a trafficable floor coating, is subject to wear and tear and its effective life is subject to its use and abuse. It should be periodically inspected to assess its functionality and if required recoated.

BENEFITS AND ADVANTAGES

ANTI-SLIP RATING

As an indication of the products excellent slip resistance and wearing properties, the slip resistance rating of **Virotoff** has been independently tested according to AS4586:2013 Appendix A (wet Pendulum Test) and achieved a BPN of up to 49 Class P4. Further, an accelerated wearing test consisting 2000 cycles equating to approximately 5 years of average wear the product slip rating was gradually reduced to BPN of 44 Class W. Reported SRV of Sample 47 BPM class: P4

Note: The manner in which the product is applied will affect its anti-slip rating and may produce a lower result and the rate of wear is subject to use and abuse of the coating.

Other benefits and advantages:

- Single pack - no mixing is required.
- Very low VOCs and meets the 'Green Star' environmental criteria.
- Incorporates composite aggregates providing an easy to walk on feel.
- Easy to maintain and recoat.
- Brush, roller or spray applied.
- Water based.
- UV resistant.
- Quick curing - generally overnight.
- Tough, durable & semi-flexible.
- Impact & vibration resistant.
- Odourless when cured.
- Suitable in food preparation areas.
- Suitable for light to moderate traffic.
- Easily overcoated & repaired.
- Chemical 'splash' resistant.
- Attractive in a range of colours.
- Looks great.
- Very versatile with many and varied applications.

PRECAUTIONS IN USE

Virotoff is water-based and considered as a non-hazardous product. However, when using the product common sense and good industrial hygiene should be observed. The use of gloves and eye protection against splashes is recommended. If spraying, a dust mask and goggles should be worn.

SURFACE PREPARATION

Good preparation is essential. Surfaces must be sound, stable, dry, clean and free of dust, loose, flaking, friable material and substances that may diminish adhesion.

PRIMING

Surfaces must be clean and dry. It is vital that all contaminants, particularly oils, grease, waxes, acids and corrosive contaminants are removed which may require cleansing with strong detergents, high pressure cleaning, acid wash or other to ready the surface for application.

After surface is made good with preparation, prime all surfaces with **Duram Primeseal MC** at the minimum rate of 4m² per litre per coat and allow to dry. Highly porous or friable surface may require an additional coat of **Duram Primeseal MC**. Note: In ideal conditions, the product may be used without a primer but it is this Company's recommendation that all areas be primed and if not primed it is at the risk of the user. Test areas are recommended.

Concrete, Cement & Porous Tiles:

Surface must be porous to allow the product to bond. The surface should be tested for porosity by spilling droplets of water on it. The prompt absorption of the droplets is a good indicator of a suitable substrate. If droplets show little sign of being absorbed the surface should be considered as doubtful for bonding purposes needing additional preparation. Examples of such doubtful surfaces includes, steel troweled, smooth, glassy or shiny or helicopter finished concrete. These surfaces must be thoroughly acid etched, washed and neutralised to provide a porous surface. This should be done in accordance with E.P.A. requirements. If acid etching is not sufficient, surfaces may require mechanical abrading or sand blasting.

If concrete is deemed suitable, apply a priming coat of **Duram Primeseal MC** so that the surface has a uniform, solid off-white appearance and allow to dry.

In exposed areas where entrapped water moisture may exist in the substrate (which can lead to bubbling) the surface must be primed with **Duram Primeseal MC** applied 3m² per litre. Additional applications maybe required for surfaces that are highly porous or damp.

Metal:

Bare metal must be treated for rust then etch primed and allowed to dry.

Painted Surfaces (inclusive of vehicle paint, powder coats and baked-on enamels):

Paint should be of good quality and must be firmly bonded to the substrate. Roughen with sandpaper or wire brush ensuring gloss is removed. Clean or wipe with **Duram Solvent** allow to dry and apply **Virotoff**. If painted surface softens on contact with **Duram Solvent** do not continue. Allow paint to dry and harden and prime with **Duram Primeseal MC**. Allow to dry and then apply **Virotoff**.

Fibreglass:

Sand to remove all gloss & clean with **Duram Solvent**. When dry, prime with **Duram Primeseal MC**. Generally, **Virotoff** can be applied directly to the prepared fibreglass but not advisable. Test areas should be done. Contact Duram technical for guidance.

Timber & Fibre-Cement Sheeting:

Sand or wire brush then clean. Prime with **Duram Primeseal MC**.

Bitumen

Clean surface and apply **Duram Primeseal MC** at 3m² per litre ensuring that the surface has a solid, uniform off-white colour. If in doubt apply a second coat.

APPLICATION

Stir thoroughly before starting the application process, then intermittently.

Apply by brush or suitable roller (black or medium texture) in coats of approximately 500 microns thick (0.5mm) until desired thickness is achieved. Rolling then lightly brushing with a soft broom is an easy way to give a good result. Rolling alone is not encouraged to uniformly disperse the aggregate. It is important that the product's texturing is maintained with each coat. Coats

applied too thickly can cause unsatisfactory results. Spread onto surface as evenly as possible. Subsequent coats should be applied at right angles to the previous coats. Apply following coats as soon as possible after previous coat has dried.

By Spray

Mask off areas not intended to be coated. Usually sprayed without dilution but if required **Virotoff** can be diluted with clean water up to a maximum of 5% by volume. Suitable spraying techniques is via panel beater type gun, hopper gun or airless spray. General recommendation, spray at lowest practical pressure possible.

By panel beater type gun and hopper gun - at approx. 80 psi (5.5 bar)

By airless spray with 32 to 35 thou tip at 1000 to 2000 psi. Remove all filters in up-take pipe and in the gun.

Spray at approximately 500 microns thick per coat. It is important that the product's texture is maintained with each coat. Apply following coats at right angles to preceding cured coats as soon as previous coat is dry. To achieve best results, masking tape, if used, should be removed after each coat when still wet. After spraying, immediately clean equipment with water.

Irrespective of application the dry coat thickness should be approximately 1mm.

Wear, Tear & Repair of Virotoff

Although **Virotoff** is tough and durable the nature of the applications renders it subject to wear & damage. It is important that the coating be monitored for wear and tear and that appropriate maintenance should be carried out to retain the products optimum performance.

To apply a maintenance or rejuvenation coat, clean surface, wire brush, wipe with Duram Prep Solvent or MEK and allow solvent to evaporate. Then apply new coat/s of **Virotoff** as follows:

1. Remove any damaged or loose areas.
2. Clean and roughen surface as well as surrounding areas.
3. Treat exposed areas as per preparation instructions.
4. Apply new **Virotoff** to area including 20mm onto the existing sound **Virotoff** coating.

COVERAGE

The stated average coverage rate may vary depending upon type, condition, porosity, texture of the surface and application technique.

Virotoff: 2m² to 2.25m² per litre per coat applied in minimum of 2 coats. Heavy duty areas should receive additional coat/s. On average the total coverage of 15 litre pails is 15m² to 18m².

Duram Primeseal MC: Minimum of 1 litre per 4m² per coat.

COLOURS

Available in range of colours including Black, Light & Dark Grey, Light Green, Enviro Green(dark) Aqua Blue(light), Royal Blue(dark), aping Beige, Safety Yellow, Seared Terracotta and White. Colour range is subject to change.

Virotoff can easily be tinted with a water-based tint of most chosen colours

NOTE: Whilst every attempt is made to replica colours, minor batch to batch colour variations may occur and if possible, job lots should be ordered. Shelf Life: Up to 12 months in unopened containers.

DRYING AND CURING

Drying and curing of the product is affected by type, dryness and porosity of the surface, temperature, humidity, ventilation, climate conditions and application technique and therefore drying and curing can only be given as a guide.

Indicative curing rates at 23°C at 50% R.H. @ 500 micron thick:

Touch dry: 2 to 6 hours.

Solid Cure: 6 to 24 hours. Recoat after solid cure ensuring previous coat can be walked on without damaging it.

Full Cure: 24 to 72 hours.

The product is suitable for light loads after 36 hours & full loads after 72 hours. The product attains full properties after 72 to 168 hours (3 to 7 days).

If exposed, do not apply if rain is imminent. Coatings must be protected from water until fully cured.

STORAGE

Keep in cool, dry place, out of direct sunlight. Available in 1, 4 & 15 Pails. Store in original labelled containers. Product is not flammable.

TILING, TOPPING OR TOP COATING

Not Applicable.

SAFETY AND PRECAUTIONS

Virotoff is considered a non-hazardous product but common sense and good industrial hygiene should prevail. If spraying, the use of a suitable mask is recommended. If swallowed do not induce vomiting, give plenty of water to drink. Seek urgent medical advice. If in eyes, flush thoroughly with clean water, holding lid open to ensure any trapped product may be flushed away. If on skin, remove contaminated clothing and wash skin with soap and water. If inhaled, unlikely due to viscosity of the product, remove person to fresh air and apply artificial respiration if required and seek urgent medical attention. Ensure adequate ventilation.

For full safety data refer to the products Safety Data Sheet. Observe precautions as per label.

TESTS AND TECHNICAL DATA

ANTI-SLIP RATING

As an indication of the products excellent slip resistance and wearing properties, the slip resistance rating of **Virotoff** has been independently tested according to AS4586:2013 Appendix A (wet Pendulum Test) and achieved a BPN of up to 49 Class P4. Further, an accelerated wearing test consisting 2000 cycles equating to approximately 5 years of average wear the product slip rating was gradually reduced to BPN of 44 Class W. Reported SRV of Sample 47 BPM class: P4

CONDITIONS OF USE AND DISCLAIMER

The information contained in this TDS is given in good faith based upon our current knowledge and does not imply warranty, express or implied. The information is provided and the product is sold on the basis that the product is used for its intended purpose and is used in a proper workmanlike manner in accordance with the instructions of the TDS in suitable and safe working conditions. Under no circumstances will the Company be liable for loss, consequential or otherwise, arising from the use of the product.

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