

Technical Data Sheet

Terratuff Epoxy Coating System



DESCRIPTION:

Terratuff is a two-pack coloured epoxy floor coating system. Terratuff gives a smooth glossy finish with excellent wear resistance. It is a general purpose epoxy floor coating designed for commercial and industrial applications.

Terratuff is a medium build epoxy coating system suitable for application to a wide variety of floor and wall substrates and including concrete and steel.

TYPICAL FEATURES | BENEFITS:



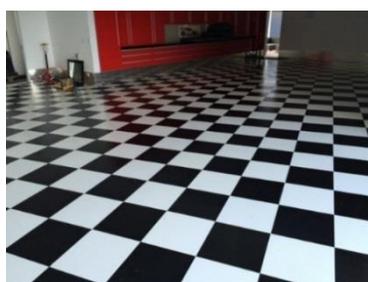
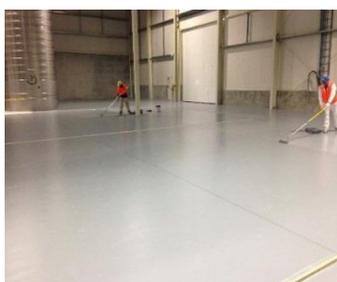
- Solvent based resin gives excellent concrete penetration and adhesion.
 - Available in various slip resistance options.
 - May be used in food safe areas.
 - Very good abrasion and scuff resistance.
 - Tolerant of application to a slightly damp surface.
 - Excellent adhesion to properly prepared substrates.
 - Easily cleaned.
 - Excellent slip resistance. Specification is needed of the degree required.
- **** Note****
Please read detail contained within document.
- Cured Film is non-toxic.
 - Not moisture permeable.
 - Colour: Available in a wide range of colours.
 - Attractive Surface Finish – medium gloss.

****Note****

For higher film builds refer:- Surecote 200

The Surecote 200 system is a non-odour system.

http://www.allnexconstruction.com/pdf/Surecote_200.pdf



COLOURS:

Terratuff stocked colour is N35 light Grey.



Neutral Grey N23



Koala Grey N45



Light Grey N35



Driftwood X34



Blue Grey N53



Lead Grey N55

Terratuff is available in many colours in the standard: BS5252F http://www.allnexconstruction.com/pdf/BS5252_ColourChart.pdf

: AS2700 http://www.allnexconstruction.com/pdf/Colour_Chart_AS2700_S_2011.pdf

RAL colours & special colours are also available.

PERFORMANCE DATA:

Minimum Application Temperature: Air	+5°C
Maximum Application Relative Humidity: Air	85%
In-service temperatures:	-20 to +80°C
Fire properties: Critical radiant flux: TEST METHOD ISO-9239-1	12.3KW/m ²
Slip resistance:	With added non-slip aggregates - see below
Chemical Resistance:	Resistant to chemical spillage –cured 7 days at 25°C. Refer: Chemical resistance literature – see below

RECOMMENDED USES:

- Ablution areas.
- Bulk retail.
- Construction and Mining Industry.
- Chemical and Oil Industry.
- Food processing facilities.
- Pulp and Paper mills.
- Refineries.
- Residential garages and workshops.
- Sewerage treatment plants.
- Silos.
- Slip resistant floor finishes.
- Warehouses.

LIMITATIONS:

- Application below +5°C.
- Application to green (uncured) concrete. Allow 28 days.
** Will tolerate damp concrete**
- Weathering/UV - Some chalking will occur in time but will maintain good film integrity.
- Application to unsound substrates.
- Application to incorrectly prepared surface.

HEALTH & SAFETY: Refer safety data sheets (SDS).

- Contents are flammable during installation.
- Avoid skin contact.
- Provide adequate ventilation.
- Avoid breathing vapour or fumes.
- Wear safety equipment including clothing and breathing apparatus.

SUBSTRATE:

All substrates shall be stable and solid.

Concrete: New

Shall have a surface which has been mechanically trowelled to AS3610:1995 U3/NZ/3114:1987U3 finish.

Concrete shall be cured for a minimum of 28 days prior to the installation of the Terratuff.

Minimum Compressive Strength at 28 days cure: 25 MPa. (25 N/mm²)

The moisture content shall be less than: 75% RH.

Have a suitable vapour resistant membrane beneath the concrete.

Concrete: Old

Minimum Compressive Strength: 25 MPa. (25 N/mm²)

The moisture content shall be less than: 75% RH.

Have a suitable vapour resistant membrane beneath the concrete.

******Note******

If the substrate is an above grade slab and waterproofing is required to comply with NZBC E3, consult with allnex Construction Products.

QUALITY ASSURANCE:

The allnex Licensed Contractor shall ensure all QA checks have been undertaken prior to the installation process and subsequently during the installation process. The completed documentation must be made available to allnex and the client/clients authorised personnel.

The product is to be installed within the required control range to ensure a fully cured hard wearing monolithic floor topping system.

Information to be recorded daily is:

- Concrete sub-base or prefill mix.
- Material batch numbers used.
- Sequence of mixing, ratios and quantities and formula.
- Substrate moisture content & Substrate temperature.
- Ambient temperature | Ambient relative humidity.
- Daily detail of licenced contractors on-site.

PRODUCT PROPERTIES:

Pot Life	+20°C ~75%RH	8 hours
Touch Dry	+20°C ~75%RH	3 hours
Hard Dry	+20°C ~75%RH	10 hours
Recoat time ~ Minimum ~ Maximum	+20°C ~75%RH	10 hours 16 hours
Cure Time:	Effectively cured after 48 hrs. Full Cure: 7 days at 20°C	
Viscosity cps	200 - 260	
SG kg/litre	1.25 - 1.40	
Thinning	Not recommended	
Clean Up	Solvent HA	
Dangerous Good Class ~ Terratuff Resin ~ Terratuff Hardener	Hazard Class 3 Packing Group II Hazard Class 3 Packing Group II	
Packaging ~ Terratuff Resin ~ Terratuff Hardener	4 litre Unit 16 litre Unit 3 litre 12 litre 1 litre 4 litre	
Shelf life	12 months from date of manufacture. (After this period consult with allnex)	

SURFACE PREPARATION:**Concrete:**

Prepare concrete by mechanical abrasion method to:- **CSP3**. (Concrete Surface Profile Scale - International Concrete Repair Institute)

See technical literature:- http://www.allnexconstruction.com/pdf/Floor_Preparation_Requirements.pdf

Remove all concrete curing agents, contaminants and any other material likely to affect the adhesion of the Terratuff.

Do not apply over existing coating without checking compatibility (compatible with most 2 component coating systems). However over coating is not likely to be successful without strong, coarse sanding or abrasion.

Prefill any large divots with allnex K125 or Epoxy Fairing Cream and diamond grind to remove any highpoints or contaminants.

COVES:

Where required:

See technical literature – Details:- http://www.allnexconstruction.com/pdf/Details_resin-floor-topplings.pdf

Install Coves:

- Small Pencil Coves: Supaset | Supascreed | Sureshield
- Other Coves: Supascreed | Sureshield

Install allnex cove upper termination metal strips: **5.2mm or 9.2mm rebated strip**.

Use a rebated wall cut if the coving strip cannot be used.

Install fibreglass CSM cloth in floor/wall internal junctions. (Required on surfaces other than Concrete upstands)

STZ PREFILL: (for adding falls, slope modification and floor angles)

Where required:

STZ prefill system types: See STZ technical literature. http://www.allnexconstruction.com/pdf/stz_prefill.pdf

The falls must be specified pre-tender. (Terratuff is medium build floor coating and prefill may involve significant extra materials).

The quantities of materials required to raise the floor height at wall perimeters is often underestimated. To do this may involve significant extra costs and should be discussed and agreed. It is a very common for STZ prefill system to be used under Terratuff to create falls to drains and other filling applications. Normally for new work falls are laid in the concrete and fall to drains. However in refurbishment the drains and falls are incorrect. Sometimes new drains are installed. The Prefill create falls of at least 1: 50 to ensure no ponding water. (1:100 will fall but will have standing water in places).

TERRATUFF KIT COVERAGE & FILM BUILD:

Resin: Part A	12 litre	3 litre
Hardener: Part B	4 litre	1 litre
Mix Total - litres	16 litre kit	4 litre kit
Kit Coverage @9m ² /litre /coat ~ 2 x coats	72m ²	18m ²
~ 3 x coats	48m ²	12m ²
Theoretical Film Build - Minimum 125 microns		

TERRATUFF MIXING:**Mix Ratio: *By volume***

Resin - Part A	3 parts
Hardener - Part B	1 part

Mixing:

Measure correct quantities or if in doubt add complete contents of Terratuff Resin (Part A) and Terratuff Hardener (Part B) to a suitable container. Power mix at low speed (approximately 300rpm) for 2 minutes ensuring both compounds are homogeneously blended and the colour is uniform. Scrape the pail sides with a long broad-knife and then mix again Mix slowly to avoid air entrapment.

Note: ensure no unmixed materials remain on the sides, rims or lips of the containers.

****DO NOT THIN****

Allow material to stand for 2-3 minutes prior to use.

INSTALLATION:**Primer:**

Terratuff is self-priming.

APPLICATION METHOD:

Roller | Brush | Conventional Spray | Airless Spray

****Note****

If spraying, care must be taken in cleaning equipment and to avoid "setting" of the Terratuff in equipment if left to stand.

Two Coat System:

Two coat systems are adequate on good, dense concrete.

Three Coat System:

Three coats are recommended if the concrete is less dense (i.e. use the first coat as a primer. Applied at a higher rate 7m²/Lt), or if a non-slip media is required.

The non-slip media is applied within the second coat.

SLIP RESISTANT FINISHES:

Typical co-efficient of friction "wet" NZS/AS3661.1:1993:

CF	Non-slip Media	Quantity m ²	Application
0.54	Microcells	2.78 grams	Mixed into kit - applied in second coat ~ 400 grams per 16 litre Kit ~ 100 grams per 4 litre Kit
0.56	Revtred	12 grams	Broadcast into second wet coat
0.63	J61 Sand	2 kg	Broadcast into second wet coat

OVERGLAZE - CLEAR ** OPTIONAL**

Over glaze can be advantageous where chemical staining may occur. Over glaze with one coat of allnex Revathane non-yellowing polyurethane (refer technical data).

Over glazes are not commonly required.

****Caution****

When over glazing severe mechanical abrasion is required to obtain the required inter-coat adhesion parameter.

JOINTS:

All concrete control and construction joints should be carried through the Terratuff using allnex K130 Epoxy or PU40 sealant.

MAINTENANCE:**Repairs:**

Chemically clean.

Mechanically abrade surface.

Repair any divots with allnex K125 or Fairing Cream.

Apply Terratuff as per "Installation instructions".

CLEANING:

Smooth Surface:

Conventional floor cleaning procedures are normally adequate to maintain clean and hygienic surface.

Non-slip Surface:

Mopping may **not** adequately remove dirt and grime from the surface profile of the Terratuff. We therefore recommend the use of a soft bristled broom in conjunction with the cleaning solution.

**** Note****

Ensure all detergent materials, dirt etc. is thoroughly rinsed from the surface following cleaning.

FIXING OF PLANT AND MACHINERY:

Mechanical fixings into the floor must be resin fixed. This is to ensure that there is no water migration into the substrate. Conventional expanding plugs, screws or anchors are not an acceptable fixing method.

CHEMICAL RESISTANCE CHART:

Test procedure: ~ Aqueous Solution applied to the surface of test samples. - Solutions are Aqueous unless otherwise stated

Results: ~ Taken after 7 days cure @ +25°C

Test Media	Concentration	Test Media	Concentration	Test Media	Concentration
ACIDS		ALKALIS		PETROCHEMICALS	
Hydrochloric Acid	20%	Caustic Soda	30%	Kerosene	
Sulphuric Acid	30%			Aviation Fuel	
Acetic Acid	5%			Lubricating Oil	
Nitric Acid				Petrol	
Lactic Acid		SOLVENTS		Fuel Oil	
Phosphoric Acid		Toluene			
Tannic Acid				OTHERS	
Lactic Acid		SALT SOLUTION		Hot Water	
Phosphoric Acid		Sodium Chloride	50%	Food Emulsions	
Tannic Acid					
DISINFECTANTS & CLEANERS					
Ammonia Solution	20%				

Note:

The table represents a guide only. Variables which may under extreme conditions, influence the chemical or corrosion resistance are:

- Temperature of chemical concentration.
- Intermittent or continuous contact.
- Application in adverse conditions.
- Risks of evaporation from spillage causing concentration to rise adversely.

****Note****

Chemical spillages should be cleaned up immediately.

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