

Technical Data Sheet

STZ Prefill Installing Falls and Level Profiles



DESCRIPTION:

STZ PREFILL is a component of allnex Industrial Floor Toppings | Resin Flooring Systems.

allnex Prefill defines a number of aggregate filled resin systems which must be compatible with the designed allnex finish system.

Polyester Resin	Epoxy Resin	Engineered Cement Screed
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It is a very common for STZ Prefill systems to be used under resin floor toppings 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 can quite often be incorrect.

STZ Prefill is used when new drains are installed and require falls to be created or recreated.

The STZ Prefill can create falls of any height but will require a minimum of at least 1: 50 to ensure no ponding water.

SUGGESTED USES:

- STZ Prefill **Type #1** is specially recommended where a rapid repair of unsatisfactory surfaces is required at moderate cost.
- STZ Prefill **Type #1** can be installed to almost any thickness and will not delaminate or become drummy in thin applications.
- STZ Prefill **Type #1** can be overlaid with an allnex Floor Topping following 24 hours cure time, unlike cement-based filling systems which will require an extended cure period.

Exceptions

Nuthane	May be installed over cement based Prefill in shorter timeframes. *Note
Supascreed	May be installed over cement based Prefill in shorter timeframes. *Note
Surecote 500 Surecote 500 AR	May be installed over cement based Prefill in shorter timeframes. *Note
Traxite Colourfine	May be installed over cement based Prefill in shorter timeframes. *Note

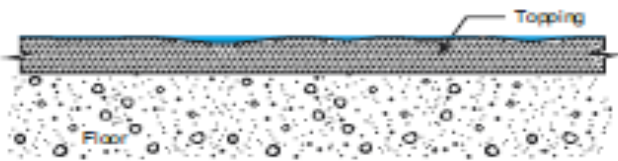
Note

Refer: Chart Below – Prefill Type #2 | Prefill Type #3

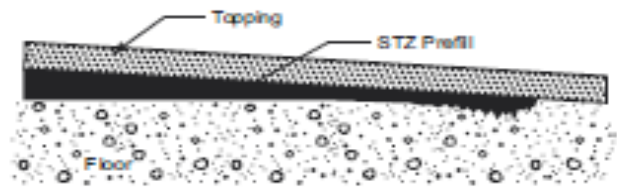
PREFILL IS RECOMMENDED FOR USE BENEATH THE FOLLOWING ALLNEX FLOOR TOPPING:

Resin Flooring Product Selection	STZ Prefill Type #1	Overlay Time #1	Prefill Type #2	Overlay Time #2	Prefill Type #3	Overlay Time #3
Sureshield	Polyester	24hrs	Engineered Bagged Screed allnex screed 20+	28 days	Concrete; Hi-strength : low water/cement ratio	28 days
Architectural Terrazite	Polyester	24hrs	Engineered Bagged Screed allnex screed 20+	28 days	Concrete; Hi-strength : low water/cement ratio	28 days
Surechem VE	Polyester	24hrs	Engineered Bagged Screed allnex screed 20+	28 days	Concrete; Hi-strength : low water/cement ratio	28 days
Supascreed	Epoxy	24hrs	Engineered Bagged Screed allnex screed 20+	7 days	Concrete; Hi-strength : low water/cement ratio	7 days
Surecote 500/500AR	Epoxy	24hrs	Engineered Bagged Screed allnex screed 20+	7 days	Concrete; Hi-strength : low water/cement ratio	7 days
Nuthane	Epoxy	24hrs	Engineered Bagged Screed allnex screed 20+	24hrs	Concrete; Hi-strength : low water/cement ratio	2 days
Traxite Colourfine	Epoxy	24hrs	Engineered Bagged Screed allnex screed 20+	7 days	Concrete; Hi-strength : low water/cement ratio	7 days

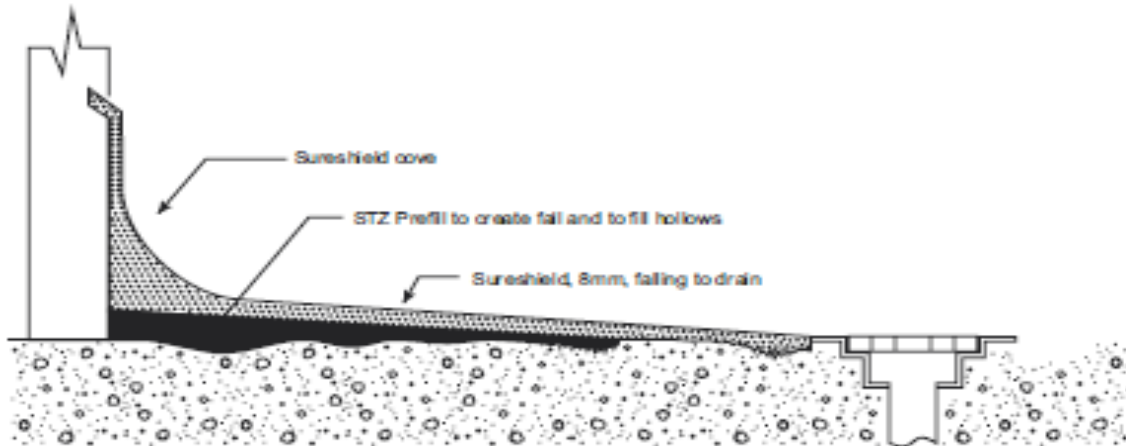
(a) Dead flat floors will have ponding no matter how well the floor is trowelled



(b) Use of prefill will allow the topping to be laid with falls to drain



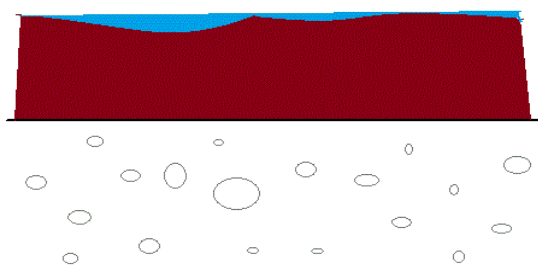
(c)



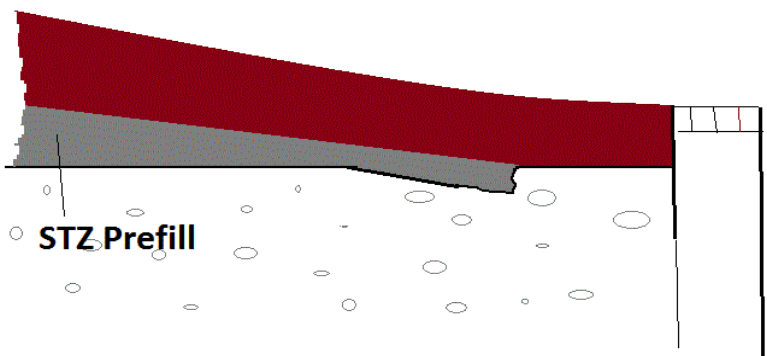
NOT TO SCALE

Effects of floor level on resin floor toppings (eg Nuthane in Red)

Dead Flat floors will have ponding no matter how well the floor is trowelled.



Use of Prefill will allow the topping to be laid with falls to drain.



HOW TO SPECIFY:

STZ Prefill shall be used to create falls to drains or to make up heights.

STZ specifications only need to identify the floor topping. allnex and its contractors will provide compatible prefill.

FILM BUILD:

allnex Prefill can be installed to almost any thickness.

FALLS AND LEVELS:

Where falls are to be created using Prefill, we recommend a minimum fall rate of 1:50 to ensure adequate free draining of liquids.

- Falls less than to 1:100 may also be suitable provided some ponding is acceptable. *Refer: Fall Calculation Sheet*

PREFILL MIX DESIGN:

Design System 1:

<u>PE Prefill - Polyester</u>	<u>Kgs</u>
PE Prefill Resin	225.0
10mm Rounded Pebble	1093.0
Silica Sand	652.0
Approx. M³ - 0.8m³	

Design System 2:

<u>Epoxy Prefill</u>	<u>Kgs</u>
Epoxy Prefill Resin – (Resin and Hardener)	180.0
10mm Rounded Pebble	1120.0
Silica Sand	700.0
Approx. M³ - 1.0m³	

Design System 3:

CEMENT BASED PREFILL

Well formulated, low water/ cement ratio concrete may be used. - This may be modified with Araplex SBR to increase adhesion.

Alternatively or for smaller areas:

allnex Screed 20+ may be used. *Refer: Screed 20+ Technical Literature*

Note Well

Cementitious Prefills are weak in thin films and are not to be used circumstances where that is required.

PREPARATION:

Prior to the commencement of the contract it is the contractor's responsibility to inspect all areas to receive the Prefill and report any unsatisfactory conditions in writing to the main contractor or client for necessary correction.

Ensure concrete joints and expansion joints are controlled and managed and just not simply laid over.

Prepare the sub-base for maximum adhesion by grinding or blasting to a minimum of **CSP 7-8**

ADHESION:

The installer shall ensure that the prefill is fully bonded to the sub – concrete.

STZ Resin Prefill systems will normally bond very strongly to well cleaned and prepared concrete and primed with the correct Primer for the chosen system.

System Primer Types:

<u>Polyester Resin</u>	<u>Epoxy Resin</u>	<u>Engineered Cement Screed</u>
STZ Primer	Supascreed Primer	K80 Epoxy

APPLICATION:

Aggregates:

All material to be used in conjunction with the Prefill system are to be stored correctly.

Do not allow materials to become wet or subjected to temperature extremes

Use only selected, graded, dust free, clean, dry aggregates to provide good filler to resin ratio with excellent compaction. I.e. no air holes or aeration.

Generally, STZ Resin Prefill consists of very coarse rounded aggregates blended with fine silica type sand.

Ratios of fine sand to coarse aggregates will vary and is dependent on grades and types selected.

Note

It is important that Prefill mixes are compact – highly filled, open, honeycombed or porous structured Prefill is unacceptable.

RESIN/BINDER:

Dependent on the selected Prefill System.

Install accurate profiles, screeds or lines etc. to ensure Prefill can be accurately installed.

This may be done in conjunction with a laser, level or other suitable device.

Once existing levels and proposed levels have been accurately defined, install Prefill.

Prefill is to be accurately installed using screeds and/or trowels to achieve maximum surface tolerances of +/- 3mm over 3m grid. During the installation of Prefill the installer shall constantly check his work to ensure accuracy.

Cement systems: Ensure good curing conditions including no direct sunlight, only low volume airflow etc.

INSTALLATION OF TOPPINGS OVER PREFILL:

The prefill will require the correct substrate preparation for the chosen Resin Flooring System prior to final flooring installation.

FALL CALCULATION SHEET:

Note

Falls of 1:50 will have no ponding water and will comply with MPI requirements in processing facilities (no splash onto foodstuffs from ponding water on floor)

Falls of 1:100 will flow to waste but are likely to still have ponding and will need to be squeegeed off.

This Chart shows the height of the prefill at perimeter walls to achieve those falls.

Distance(metres)	1:50 Height (mm)	1:75 Height (mm)	1:100 Height (mm)
1	20.00	13.33	10.00
1.5	30.00	20.00	15.00
2	40.00	26.66	20.00
2.5	50.00	33.33	25.00
3	60.00	40.00	30.00
3.5	70.00	46.66	35.00
4	80.00	53.33	40.00
4.5	90.00	60.00	45.00
5	100.00	66.66	50.00
5.5	110.00	73.33	55.00
6	120.00	80.00	60.00
6.5	130.00	86.66	65.00
7	140.00	93.33	70.00
7.5	150.00	100.00	75.00
8	160.00	106.66	80.00
8.5	170.00	113.33	85.00
9	180.00	120.00	90.00
9.5	190.00	126.66	95.00
10	200.00	133.33	100.00
10.5	210.00	140.00	105.00
11	220.00	146.66	110.00
11.5	230.00	153.33	115.00
12	240.00	160.00	120.00
12.5	250.00	166.66	125.00
13	260.00	173.33	130.00
13.5	270.00	180.00	135.00
14	280.00	186.66	140.00
14.5	290.00	193.33	145.00
15	300.00	200.00	150.00
15.5	310.00	206.66	155.00
16	320.00	213.33	160.00
16.5	330.00	220.00	165.00
17	340.00	226.66	170.00
17.5	350.00	233.33	175.00
18	360.00	240.00	180.00
18.5	370.00	246.66	185.00
19	380.00	253.33	190.00
19.5	390.00	260.00	195.00
20	400.00	266.66	200.00

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Replaces: Aug 2021

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