# Technical report

# TEXFIN – *ANTI-MICROBIAL* PERFORMANCE REPORT

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| **CUSTOMER** | **INTERNAL EVALUATION** |
| **DATE OF REPORT** | 30TH MAY 2017 |
| **REPORT NUMBER** | 2744 A |
| **START DATE** | 26TH MAY 2017 |
| **END DATE** | 30TH MAY 2017 |
| **ENQUIRY DESCRIPTION** | Please assess the anti-fungal effects of the submitted ***SKUDO HT MAT*** protective covering material and its ***SKUDO BASE COAT*** adhesive. |
| **SAMPLE REFERENCES** | **1. SKUDO HT MAT**<br>**2. SKUDO BASE COAT** |
| **SAMPLE COMPOSITION** | N/A |
| **COLOURS** | N/A |
| **INTENDED END ARTICLE** | PROTECTIVE COVERING |
| **TEXCHEM PRODUCTS** | N/A |
| **APPLICATION LEVELS** | PLEASE SEE BELOW |
| **APPLICATION PROCEDURE** | PAD DRY/CURE |

| **DETAILS OF SAMPLES TESTED** |
|---|
| **SKUDO HT MAT – TESTED WITH REVERSE OF THE MAT IN CONTACT WITH THE AGAR** |
| **SKUDO BASE COAT – TESTED AS THE WET PRODUCT AND ALSO AS A DRIED FILM** |

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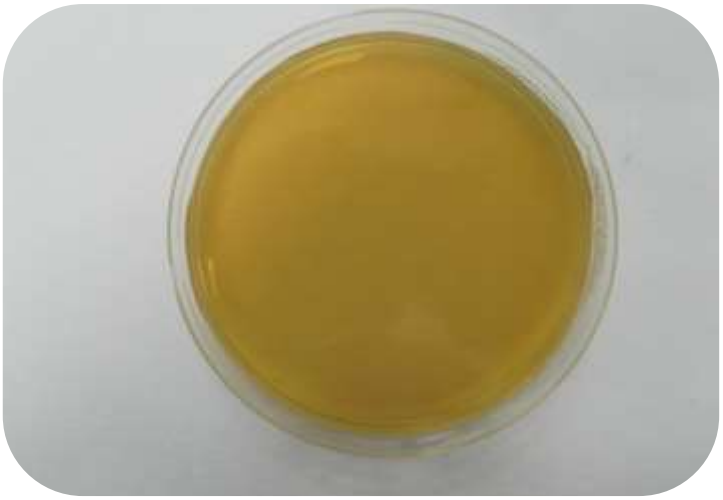
| **TEST REQUIRED** | IN-HOUSE FUNGAL RESISTANCE TEST* |

*Please refer to appendix for in-house test method

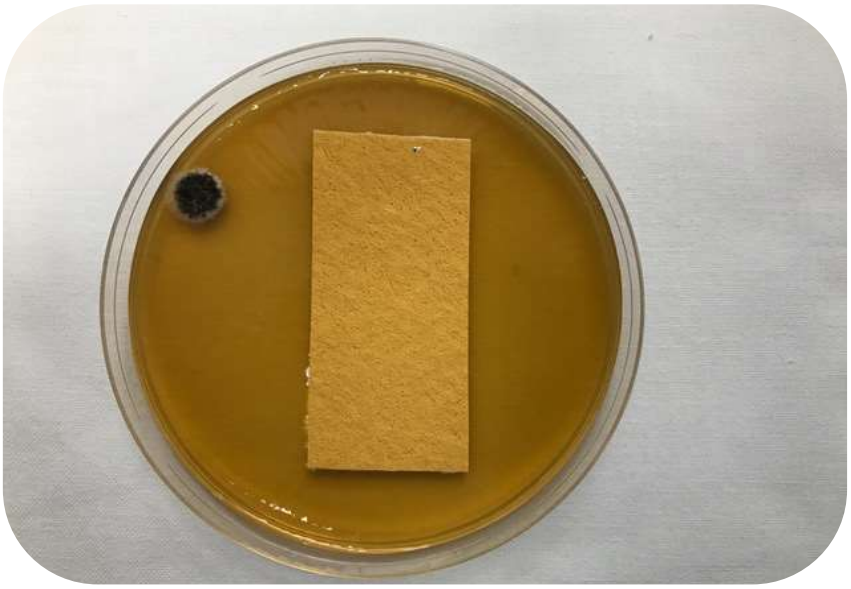
**RESULTS – ANTI-FUNGAL EFFECTS AGAINST *aspergillus niger***

Please refer to the photographs overleaf of the test specimens after incubation.

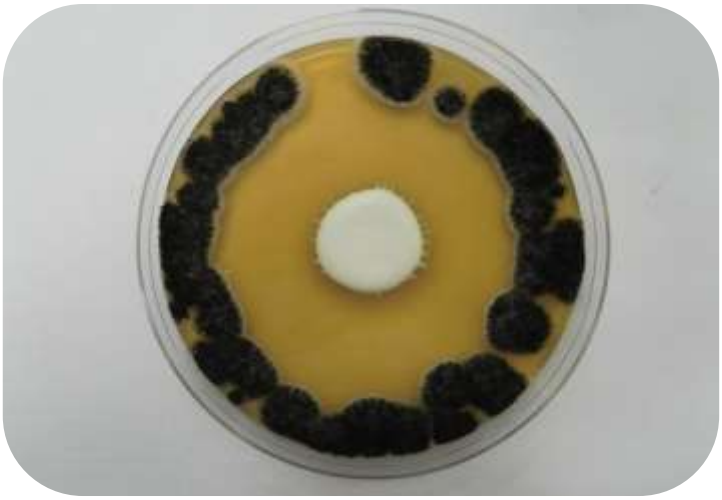


Agar plate before incubation
- no test specimen

Typical fungal growth with
untreated sample



# SKUDO HT MAT



## SKUDO BASE COAT - tested as wet product

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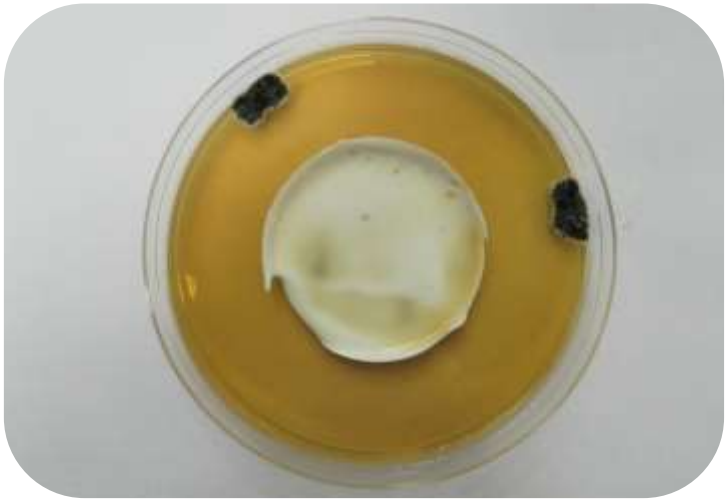

# SKUDO BASE COAT - tested as dried film

| COMMENTS ON THE RESULTS – ANTI-FUNGAL EFFECTS AGAINST *aspergillus niger* |
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The effects observed can be summarised as follows:

| FABRIC SAMPLE | COMMENTS ON FUNGAL GROWTH |
|---|---|
| **SKUDO HT MAT – REVERSE DOWN** | **Clear zone of inhibition around the test specimen – excellent fungal growth resistance** |
| **SKUDO BASE COAT – WET PRODUCT TEST** | **Clear zone of inhibition around the test specimen – excellent fungal growth resistance** |
| **SKUDO BASE COAT – DRIED FILM TEST** | **Clear zone of inhibition around the test specimen – excellent fungal growth resistance** |

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## CONCLUSIONS

- **The SKUDO HT MAT demonstrated excellent anti-fungal effects against *aspergillus niger* in the above described test.**
- **The SKUDO BASE COAT demonstrated excellent anti-fungal effects when tested either as a wet product or as a dried film.**

*Please note this is a very stringent test method where the fungi is placed in direct contact with the test specimens in test in the presence of high levels of nutrient and then the incubation process provides accelerated conditions for the fungi to thrive.*


## Brian Robinson

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## APPENDIX - QUALITATIVE ANTI-FUNGAL EFFECT – IN HOUSE METHOD - SUMMARY

*The test was carried out to assess the fungal growth of aspergillus niger in the presence of the test samples.*

Malt extract agar was freshly prepared poured into sterile petri dishes. The poured plates were then left in a refrigerator for three hours to allow the agar to set.

Rectangular test specimens were prepared from the SKUDO HT MAT sample – approximately 25mm X 50mm in size.

A 10µml culture loop was loaded with the freshly prepared *aspergillus niger* inoculum and this was then transferred to the surface of the sterile agar plate and then spread so as to completely cover the surface of the agar. Care was taken to not break the surface of the agar whilst carrying out this process.

The SKUDO HT MAT test specimen, drops of the wet SKUDO BASE COAT or the dried SKUDO BASE COAT FILM were then gently placed across or on the plate ensuring intimate contact with the agar surface.

The plates were then incubated at 37°C +/- 2°C for 96 hours to allow the *aspergillus niger* to colonise the surface of the agar and fabric surface.

The resultant incubated samples were then visually assessed comparing the ability of the fungi to grow on the agar surface.