

United Kingdom

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Web:

CONFIDENTIAL TEST REPORT

Our Ref:

25747(2)

Your Ref :

PO 00695-2

Page 1 of 4 7 December 2009

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Client:

Rob Baggs

Spectrum Vinyls Ltd

191-205 Cambridge Heath Road

London E2 0EL

Job Title:

Anti microbial testing

Client's order no: STL Quote reference: PO 00695 IGS 126-09

Date of receipt: Date of test start: 23rd November 2009 25th November 2009

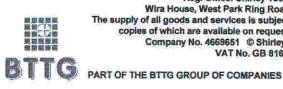
Description of sample(s):

Blue vinyl labelled "Spectrum Contract vinyl"

Work requested:

SNV 195 920: 1994 and SNV 195 921: 1994

Results quoted in reports, issued by the Company, relate only to the sample(s) supplied and should not be construed or interpreted in any other way.







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Spectrum Vinyls Ltd

Two pieces of blue vinyl were tested for antibacterial properties using the methods described in SNV 195 920: 1994 against *Staphylococcus aureus* ATCC 6538 and *Klebsiella pneumoniae* ATCC 4352, as agreed with the client.

The pieces of blue vinyl were also tested for antifungal properties using the methods described in SNV 195 921: 1994 against *Trichophyton mentagrophytes* ATCC 9533 and *Aspergillus niger* ATCC 6275.

Both faces of the vinyl product were tested.

1. Method (UKAS accredited)

1.1 SNV195 920:1994

Seeded agar was prepared by adding 1ml of a 16-20h culture of *Staphylococcus aureus* to 150ml of molten tryptone soya agar, cooled to 45°C, and pouring approximately 5ml onto a pre-prepared nutrient agar plate. The test specimen was placed in the centre of the plate. A sterile glass plate was then placed on top of the specimen to ensure intimate contact with the agar surface. The specimen was incubated at 37°C for 24 hours. The zone of inhibition around the specimen was determined according to the method stated in Section 14 of SNV195 920:1994.

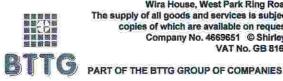
The procedure was repeated using Klebsiella pneumoniae as the test organism.

1.2 SNV 195 921: 1994

A spore/ mycelial preparation of *Trichophyton mentagrophytes* was prepared using sterile phosphate buffer solution. Seeded agar was prepared by adding 1ml of the spore preparation to 100ml of molten Sabouraud Dextrose agar, cooled to 45°C, and pouring approximately 10ml onto a pre-prepared Sabouraud Dextrose agar plate. Four samples were then placed in the centre of four plates, testing both sides of the fabric. A sterile glass plate was then placed on top of the specimen to ensure intimate contact with the agar surface. The specimen was then incubated at 28°C for 7 days. The zone of inhibition around the specimen was determined according to the method stated in Section 15 of SNV195 921:1994.

The procedure was repeated using Aspergillus niger as the test organism.

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2. Results (UKAS accredited)

2.1 SNV 195 920:1994: Blue vinyl labelled "Spectrum Contract vinyl"

Sample	Micro-organism	Specimen	D	d	D-d	D-d/2 = H	Average H	Growth
			(mm)	(mm)	(mm)	(mm)	(mm)	
Face (blue)	S. aureus	1	30	25	5	2.5		None
		2	30	25	5	2.5	2.63	None
		3	31	25	6	3		None
		4	30	25	5	2.5		None
Back (white)	S. aureus	1	28	25	3	1.5		None
		2	29	25	4	2	1.63	None
	<u></u>	3	28	25	3	1.5		None
		4	28	25	3	1.5		None
Face (blue)	K. pneumoniae	1	26	25	1	0.5		None
		2	26	25	1	0.5	0.75	None
		3	27	25	2	11		None
		4	27	25	2	1		None
Back (white)	K. pneumoniae	1	25	25	0	0		None
		2	25	25	0	0	0.13	None
		3	25.5	25	0.5	0.25		None
		4	25.5	25	0.5	0.25		None

H = Width of clear zone of inhibition

D = Total diameter of test specimen and zone

d = Diameter of the test specimen

Comments

The blue vinyl sample showed zones of inhibition when tested against *S.Aureus*. No growth was observed under any of the samples. Similarly the blue vinyl sample showed zones of inhibition when tested against *K.Pneumoniae*. No growth was observed under any of the samples.

Therefore it can be concluded from the evaluation scheme, which takes into account both development of bacteria under the specimens as well as the formation of an inhibition zone around the specimens, that these samples had good activity under the conditions of the test.

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Spectrum Vinyls Ltd

2.2 SNV 195 921:1994: Blue vinyl labelled "Spectrum Contract vinyl"

Sample	Micro-organism	Specimen	D	d	D-d	D-d/2 = H	Average H	Growth
			(mm)	(mm)	(mm)	(mm)	(mm)	
Face (blue)	T.mentagrophytes	1	25	25	0	0		None
		2	25	25	0	0	0	None
		3	25	25	0	0		None
		4	25	25	0	0		None
Back (white)	T.mentagrophytes	1	25	25	0	0		None
		2	25	25	0	0	0	None
		3	25	25	0	0		None
		4	25	25	0	0		None
Face (blue)	A.niger	1	25	25	0	0		None
		2	25	25	0	0	0	None
		3	25	25	0	0		None
		4	25	25	0	0		None
Back (white)	A.niger	1	25	25	0	0		None
		2	25	25	0	0	0	None
		3	25	25	0	0		None
		4	25	25	0	0		None

Comments

The blue vinyl sample displayed no zones of inhibition when tested against *Tricophyton Mentagrophytes* and no growth was observed under all of the samples. Similarly the blue vinyl sample displayed no zones of inhibition when tested against *Aspergillus niger* and no growth was observed under all of the samples.

From the evaluation scheme as stated in the standard, the sample displayed good antifungal activity under the conditions of the test for these particular fungi.

SHIRLEY TECHNOLOGIES LTD MANCHESTER, U.K.

Enquiries concerning this report should be addressed to the Reporting Officer

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