



BCTC
CARPET TECHNICAL CENTRE

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F L O O R C O V E R I N G S

Our Ref: 25947/3/03
Your Ref:
Order No:

13 May 2003
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Client: Egetaepper a/s
Industrivej Nord 25
Postbox 190
DK-7400 Herning
Denmark

Job Title: **NHS Patient Area Tests on One Sample of Carpet**

Material Received: 26 March 2003

Description of Sample: **Texture Care 2000**
Tufted Carpet
Cut Pile
Secondary Backed

Measurements: 400cm x 300cm

Note The following tests were made with reference to the Health Care Supplies South West performance specification for textile floor coverings in NHS patient areas.

Testing Atmosphere: Unless otherwise specified the sample has been conditioned and tested, where appropriate, in the standard atmosphere for conditioning and testing textiles (BS EN 20139:1992) of 65±2% r.h. and 20±2°C.

MEMBER OF THE
ORGANISATION OF
TEST LABORATORIES



This report is incomplete without all the pages specified above
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Determination of the Effect on Tuft Withdrawal Force and Impermeability from Applied Disinfectant and Bleach Solutions, and Colour Fastness to the solutions - Test F

1. Effect on Tuft Withdrawal Force

70ml of each solution was applied to each duplicate specimen measuring 20cm x 20cm. Ten tufts were then removed from each specimen following the procedure of BS 5229:1975(1996), 5 hours after application.

The mean tuft withdrawal force is quoted.

<u>Solution</u>	<u>Tuft withdrawal force (kg)</u>
2% Clearsol	1.15
10% Bleach	1.33
1% Bleach	1.51
Control	2.20

2. Effect on Impermeability

Spray Extraction

25mls of each of 2% Clearsol, 10% Bleach and 1% Bleach were applied to one 100cm x 35cm sample; each solution was applied uniformly over a 13cm diameter area and left for 24 hours. The sample was then tested as described in Test E of the Performance Specification.

Spillage Test

25mls of each of 2% Clearsol, 10% Bleach and 1% Bleach were applied to 13cm diameter areas of the sample and left for 24 hours. Each solution was applied to independent specimens. The specimens were then tested as described in Test E of the Performance Specification.

Results

No water penetration was visible in either the spray extraction or the spillage tests.



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3. Colour Fastness

5ml of each of the solutions was applied to 6cm diameter areas of a 15cm x 15cm sample. The change of shade was assessed after 10 minutes and after reaching equilibrium with the standard conditions, using standard grey scales; 5 represents no change and 1 a severe change.

<u>Solution</u>	<u>Change of Shade After:-</u>	
	<u>10 mins.</u>	<u>Equilibrium.</u>
2% Clearsol	5	5
10% Bleach	5	5
1% Bleach	5	5

Determination of the Drying Characteristics - Test G

Two specimens, each 85cm x 35cm, from the sample were each subjected to two wet passes using an industrial spray extraction machine. Immediately after cleaning, two 20cm x 20cm areas were cut out from each specimen and weighed. Further weights were then determined at subsequent intervals of 2, 5 and 24 hours and then until equilibrium was reached.

The mean percentage moisture content at each stage, based on the equilibrium weight, is quoted.

<u>Time (h)</u>	<u>Mean moisture content (%)</u>
0	13.1
2	10.6
5	6.9
24	0.1



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Determination of Drag Resistance - Test H

One specimen measuring 1m x 2m was laid on a flat, level surface. The drag resistance in both the warp and the weft direction was determined by measuring the maximum force required to move a rectangular weight of 525g covered with evacuation sling material, when attached to a tensometer. The test is repeated three times in each direction and the mean calculated.

Mean Drag Resistance (g)

Weft direction	257
Warp direction against the pile	247
Warp direction with the pile	220

Determination of Impedance to Wheeled Traffic - Test I

One specimen measuring 1m x 2m was laid on a flat, level surface. The impedance to wheeled traffic was determined by measuring the maximum force required to move a base fitted with wheels at predetermined centres and of varying weights, when attached to a tensometer.

The forces required to turn the wheels to an on line position (when set at right angles) and to commence forward movement, both with and against the pile, are quoted.

The wheeled bases used are as follows:-

Wheel diameter (mm)	50	75	100
Wheel centres (mm)	330 x 330	460 x 610	510 x 915
Overall weight (kg)	9	23	26

<u>Wheel diameter (mm):-</u>	<u>Mean force (kg) required to</u>					
	<u>commence movement</u>			<u>turn the wheels</u>		
	<u>50</u>	<u>75</u>	<u>100</u>	<u>50</u>	<u>75</u>	<u>100</u>
With the pile	1.45	1.83	2.70	1.80	2.47	2.90
Against the pile	1.53	2.00	2.70	1.87	2.52	3.55



Assessment of the Survival of Micro-organisms - Test J

Eighteen discs inoculated with the Escherichia Coli culture were prepared from the carpet. Fifteen of these were used to determine the surface colony count at various time periods, the remaining three being used to determine the in depth colony count. In all cases the colony count is based on MacConkey agar after incubation at 37°C for 18 to 24hrs..

The mean colony counts at various stages are as follows:-

<u>Contact Plates</u>	
<u>No. of hours</u>	<u>Mean Colony Count</u>
0	TMTC
2	24
4	1
6	0
24	0
<u>Plate Count</u>	0

N.B.

Colony counts decrease gradually with time. Cells are virtually non-recoverable after 24 hours.

*TMTC = Too Many To Count, (> 300)



Determination of the Ease of Protein Removal - Test K

Two specimens, each 85cm x 35cm, from the sample were cleaned using an industrial spray extraction machine and left for 24hrs to recondition in the standard atmosphere. The following was then carried out for each specimen:-

Two 60mm diameter areas were each uniformly treated with 5mls of a 10% dyed horse serum solution and left for 24 hours. A further two areas were treated as above and left for 5 minutes. One area only from each set (i.e. 5 mins. and 24 hours) was then cleaned using an industrial spray extraction machine.

Each treated area was then placed in 75mls of a 5% ammonium hydroxide solution in order to remove the horse serum. The colour of each diluted resultant solution was then measured using a spectrophotometer. The percentage removal of horse serum was calculated, based on the treated specimens before cleaning.

<u>Mean Protein Removal (%) After</u>	
<u>5 Mins.</u>	<u>24 Hours Application</u>
89.3	65.1

Determination of the Ease of Urea Removal - Test L

Two specimens, each 85cm x 35cm, from the sample were cleaned using an industrial spray extraction machine and left for 24hrs to recondition in the standard atmosphere. The following was then carried out for each specimen:-

Two 60mm diameter areas were each treated with 1ml of a 1.25% urea solution and left for 24 hours. A further two areas were treated as above and left for 5 minutes. One area only from each set (i.e. 5 mins. and 24 hours) was then cleaned using an industrial spray extraction machine.

Each treated area was then chopped up and shaken with 50mls of distilled water in order to remove the urea. Each resultant diluted solution was then analysed by high performance liquid chromatography and the percentage removal of urea was calculated, based on the treated specimens before cleaning.

<u>Mean Urea Removal (%) After</u>	
<u>5 Mins.</u>	<u>24 Hours Application</u>
93.2	63.1



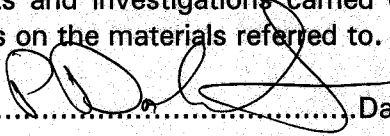
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The information contained on page no's 1/7 of this certificate is hereby certified to be a correct statement of the tests and investigations carried out by Wira Testing Services on the materials referred to.

Signed..........Date.....13/5/03.....
P Doherty
Operational Head