Medical Index GmbH
Gesellschaft für medizin-technische Produkte

04.03.2017

To whom it may Concern

MATRIX Cover Material for medical index x-Ray Protection garment

Matrix is treated reliable antimicrobial effect against a large number of gram positive and gram negative bacteria, yeast, mites and fungi. Its activity on the cell disrupts the metabolic process of unwanted microorganisms and thus interrupts their ability to function, grow and reproduce

The Advantage is

Highly effective and durable protection against the growth of bacteria, fungi and yeast

Effective against MRSA Prevents microbial caused material destruction
Prevents microbial caused odors

Controls mildew and formation of mildew stains

Prevents microbial caused odors

Controls mildew and formation of mildew stains
Prevents the settling and proliferation of dust mites

Ready to use and easy to dose

The active substance has passed dermatological tests and fulfils the requirements of the European Cosmetics Directive and US FDA for cosmetic ingredients

The active ingredient is approved by the US EPA for indirect food contact polymer applications

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Your notice of	Your reference	Date
10-10-2014	BE15/4500174986	13-11-2014

Analysis Report 14.04854.02

Required tests :

ASTM F1670 (2008)	**Resistance to penetration by synthetic blood**
ASTM F1671 (2013)	**Resistance to penetration by blood-borne pathogens – Test method using Phi-X174 bacteriophage**

Resistance to penetration by synthetic blood

Date of ending the test	21-10-2014
Standard used	ASTM F1670 (2008)

Type of sample	Blue coating/white knitted fabric
Dimension of the test specimens	7.5cm x 7.5cm
Number of test specimens	3
Paraffin-sealed edges	No
Sampling	Everywhere in the 2 received pieces of material
Test specimens conditioning	21 ± 5°C, 30 to 80%RH The sample is not tested in conditioned area but directly after conditioning.
Sterilization	None
Side in contact with the synthetic blood	Outside
Test procedure used	Procedure B (0 kPa 5 min + 13.8kPa 1 min + 0kPa 54 min - With screen)
Retaining screen specifications	Metal square mesh screen (open area >50%), limiting the deflection of the sample to ≤ 5.0 mm
Method used to improve the visualisation	None
Surface tension of synthetic blood	42 ± 2 dynes/cm
Deviation from the standard	This formula used is not the formula described in the ASTM F1670 but the formula described in the ISO 16603 standard which is similar and is a more international standard. This change has been made because the formula described in the ASTM standard does not always give the right surface tension due to the use of a commercial dye which contains some products influencing the surface tension.
Temperature during the test	24°C

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Resistance to penetration by synthetic blood

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Standard used	ASTM F1670 (2008)

Type of sample	Blue coating/white knitted fabric
Dimension of the test specimens	7.5cm x 7.5cm
Number of test specimens	3
Paraffin-sealed edges	No
Sampling	Everywhere in the 2 received pieces of material
Test specimens conditioning	21 ± 5°C, 30 to 80%RH The sample is not tested in conditioned area but directly after conditioning.
Sterilization	None
Side in contact with the synthetic blood	Outside
Test procedure used	Procedure B (0 kPa 5 min + 13.8kPa 1 min + 0kPa 54 min - With screen)
Retaining screen specifications	Metal square mesh screen (open area >50%), limiting the deflection of the sample to ≤ 5.0 mm
Method used to improve the visualisation	None
Surface tension of synthetic blood	42 ± 2 dynes/cm
Deviation from the standard	This formula used is not the formula described in the ASTM F1670 but the formula described in the ISO 16603 standard which is similar and is a more international standard. This change has been made because the formula described in the ASTM standard does not always give the right surface tension due to the use of a commercial dye which contains some products influencing the surface tension.
Temperature during the test	24°C

Results

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Resistance to penetration by blood-borne pathogens – Test method using Phi-X174 bacteriophage

Date of ending the test	07-11-2014
Standard used	ASTM F1671 (2013)

Type of sample	Blue coating/white knitted fabric
Dimension of the test specimens	7.5cm x 7.5cm
Number of test specimens	3
Sampling	Everywhere in the 2 received pieces of material
Paraffin-sealed edges	No
Test specimens conditioning	21 ± 5°C and 30-80 % RH The sample is not tested in conditioned area but directly after conditioning.
Sterilization	None
Side in contact with the bacteriophage suspension	Outside
Test procedure used	Procedure B (0 kPa 5 min + 13.8 kPa 1 min + 0 kPa 54 min - With screen)
Retaining screen specifications	Metal square mesh screen (open area >50%), limiting the deflection of the sample to ≤ 5.0 mm
Surface tension of the bacteriophage suspension	42 ± 2 dynes/cm
Used bacteriophage	*Bacteriophage Phi-X 174* (ATCC13706-B1)
Host bacteria	*Escherichia coli* (ATCC 13706)
Compatibility ratio	2.31

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