

OEKO-TEX®

Technical Report

Our Ref:

39414

Certificate No: 11-31475





Shirley Technologies Limited Unit 11, Westpoint Enterprise Park Clarence Avenue Manchester, M17 1QS United Kingdom

> Tel: +44 161 869 1610 Fax: +44 161 872 6492 www.shirleytech.com

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Oeko-Tex Certificate Number

11-31475

Client

Richard Pieris Natural Foams Ltd Block A Biyagama Export Processing Zone Malwana Sri Lanka 11672

Date of receipt

18 June, 2015

Date work started (correct samples received and credit approved or payment received)

01 September, 2015

Work Requested

Application for Renewal of Oeko-Tex ® Certificate 11-31475 Expiry Date 15.8.15

Samples Received

| STL Code | <u>Description</u> |
|----------|--------------------|
| 089356 | Natural Latex Foam |
| 089357 | Natural Latex Foam |
| 089358 | Natural Latex Foam |

Specimens Analysed (as per quotation)

| STL Code 089418 | <u>Description</u> Natural Latex Foam |
|--------------------|--|
| 089419 | Natural Latex Foam |
| 089420 | Natural Latex Foam |



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1. INTRODUCTION

Samples were submitted for certification to Oeko-Tex® Standard 100. An application form was filled in by the client detailing the manufacturing processes, any chemicals involved in production and any necessary Health and Safety data.

2. LABORATORY INVESTIGATION

The testing was carried out to Oeko-Tex® Standard 100 Product Class I (Issue 01/2015), using the methods summarised in the normative document "OEKO-TEX® Standard 100 - testing procedures".

The comment n.d in the results table means the compound was below the lower quantification limit of the method in our laboratory.



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3. OEKO-TEX LIMIT VALUES

| Class I Criteria | Limit |
|---|---------------------------------|
| рН | 4.0-7.5 |
| Formaldehyde (mg/kg) | 4.0-7.5 |
| Extractable Metals (mg/kg) | 10 |
| As | 0.2 |
| - 12 | |
| Pb | 0.2 |
| Cd | 0.1 |
| Cr | 1.0 |
| Co | 1.0 |
| Cu | 25.0 |
| Ni | 1.0 (0.5 metallic) |
| Hg | 0.02 |
| Sb | 30.0 |
| Total Metals (mg/kg) | |
| Pb | 90.0 |
| Cd | 40.0 |
| Chlorinated & Other Phenols (mg/kg) | |
| PCP/TeCP | 0.05/0.05 |
| TrCP/OPP | 0.2/50.0 |
| Pesticides (mg/kg) Total | 0.5 |
| Arylamines (mg/kg) | 20 |
| Allergenic Dyes (mg/kg) | 50 |
| Chlorinated Benzenes & Toluenes (mg/kg) Total | 1.0 |
| PFOS,PFOA (ug/sq.m) | 1.0 |
| PFUdA, PFDoA, PFTrDA, PFTeDA (mg/kg) | 0.05 |
| Phthalates (DINP, DNOP, DIDP, DEHP, BBP, DBP, DIBP, DIH | P,DHNUP,DHP,DMEP,DPP) (wt%) 0.1 |
| SCCP/TCEP (wt%) | 0.1 |
| NMP/DMAc/DMF (wt%) | 0.1 |
| Formamide (wt%) | 0.02 |
| DMFu (mg/kg) | 0.1 |
| OP/NP (mg/kg) | 10 |
| AP/APEO Sum (mg/kg) | 100 |
| Individual PAH inc: Benzopyrene (mg/kg) | 0.5 |
| Total PAH (mg/kg) | 5.0 |
| Colourfastness | |
| Water | 3 |
| Persp. acid/Persp.alkali | 3-4 |
| Dry rub | 4 |
| Saliva & Perspiration | Fast |
| Organo Tin (mg/kg) | |
| DBT | 1.0 |
| TBT | 0.5 |
| TPhT | 0.5 |
| DOT | 1.0 |
| | |



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Volatile Emissions (mg/cu.m)

Formaldehyde 0.1 Toluene 0.1 Styrene 0.005 Vinylcyclohexene 0.002 4-phenylcyclohexene 0.03 Butadiene 0.002 Vinylchloride 0.002 **Aromatic Hydrocarbons** 0.3 **Total Organic Volatiles**

For the full listing of Oeko-Tex limit values please see the current version of Oeko-Tex Standard 100.



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4. TEST RESULTS

pH: Class I & II

рΗ

089418 7.3

Extractable Metals: Class I

| | 089420 |
|------------------|--------|
| Antimony (mg/kg) | n.d. |
| Arsenic (mg/kg) | n.d. |
| Cadmium (mg/kg) | n.d. |
| Chromium (mg/kg) | n.d. |
| Cobalt (mg/kg) | n.d. |
| Copper (mg/kg) | n.d. |
| Lead (mg/kg) | n.d. |
| Mercury (mg/kg) | n.d. |
| Nickel (mg/kg) | n.d. |
| | |

Lead/Cadmium Total: Class I

| | 089418 |
|-----------------|--------|
| Cadmium (mg/kg) | n.d. |
| Lead (mg/kg) | n.d. |

Amines derived from Azo Colorants

MAK Amines (mg/kg total) 089418
n.d.

Phthalates: Class I

Phthalates (% total) 089420 n.d.

Organo Tin: Class I

| | 089420 |
|--------------|--------|
| TBT (mg/kg) | n.d. |
| DBT (mg/kg) | n.d. |
| DOT (mg/kg) | n.d. |
| TPhT (mg/kg) | n.d. |



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Subjective Odour

089418

Subjective Odour

PASS

Solvent NMP, DMAc, Fmd and DMF

089418

NMP solvent (%)

n.d. n.d.

DMAc solvent (%)
DMF solvent (%)

n.d.

Formamide (%)

n.d.

Volatile Emissions: Formaldehyde

089419

Formaldehyde (mg/m³)

n.d.

Emission Chamber VOCs

| | 089419 |
|--------------------------|--------|
| Toluene (mg/m³) | 0.0000 |
| Styrene (mg/m³) | 0.0019 |
| Vinylcyclohexene (mg/m³) | 0.0000 |
| 4-PCH (mg/m³) | 0.0000 |
| Butadiene (mg/m³) | 0.0000 |
| Vinylchloride (mg/m³) | 0.0000 |
| Aromatics (mg/m³ total) | 0.0068 |
| VOCs (mg/m³ total) | 0.0342 |
| | |

Phenols: Class I

| | 089418 |
|--------------|--------|
| PCP (mg/kg) | n.d. |
| TrCP (mg/kg) | n.d. |
| TeCP (mg/kg) | n.d. |
| OPP (mg/kg) | n.d. |

Alkylphenol and Alkylphenol Ethoxylates

| | 089418 |
|---------------------|--------|
| OP/NP mg/kg) Sum | n.d. |
| AP/APEO (mg/kg) Sum | n.d. |



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5. CONCLUSIONS

The samples submitted conform to Oeko-Tex® Standard 100 Product Class I.

Reported by:

Mrs Fiona McAllin, Technical Administrator

Countersigned by:

Mr Phil Whitaker, Ecology Services Director

Enquiries concerning this report should be addressed to Customer Services (contact details above)



Our laboratories are accredited to EN ISO/IEC 17025