

TEST REPORT

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| Report Ref: LEHTX00101330 | |
| Date Received : 25/08/2017 | Date Issued: 01/09/2017 |

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| Company Name & Address | Dirty Rigger Gloves & Accessories Sawtry Way Unit 1, Houghton Hill Industries Cambridge PE28 2DH |
| Contact Name: | Steven Marshall |

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|----------------------------|--|
| Order No.: | |
| Description: | Rope Op |
| Colour (S) : | Black |
| Supplier: | |
| End Use: | Gloves |
| Quoted Composition: | |
| Ref / Style No. | |
| Quality: | |
| Batch No.: | |
| Specification: | EN 388: 2016 / EN 420: 2003 + A1: 2009 |

| Tests Conducted | Method | Sample | Pass/Fail |
|---|----------------|--------|-------------|
| ^Gloves – Abrasion Resistance | EN 388 - 6.1 | | Level 3 |
| ^Gloves – Blade Cut Resistance | EN 388 - 6.2 | | Level 1 |
| ^Gloves – Tear Strength | EN 388 - 6.4 | | Level 2 |
| ^Gloves – Puncture Resistance | EN 388 - 6.5 | | Level 2 |
| ^Gloves – Design & Construction | EN 420 | | Pass |
| ^Gloves – Sizing | EN 420 | | See Results |
| ^Gloves – Dexterity | EN 420 | | Level 5 |
| ^Determination of pH of Textile Material | EN ISO 3071 | | Pass |
| ^Detection of Amines Derived from Azocolourants and Azodyes | EN 14362-1 | | Pass |
| ^Determination of pH in Leather | EN ISO 4045 | | Pass |
| ^Determination of Chromium VI | EN ISO 17075 | | Pass |
| ^Azo Dyes in Leather | EN ISO 17234-1 | | Pass |

RESULTS: See attachment

COMMENT: Where the results of a test fall close to the requirement, compliance with the specification may be affected by the uncertainty of measurement of the test. In those circumstances, the client is advised to contact the laboratory for further information

Unmarked tests included in this report are on our UKAS Scope 1516.

Tests marked (^) in this Report are included in the UKAS Scope of the sub-contractor who performed the test.

Tests marked (*) in this Report are not included in our UKAS Scope 1516.

Tests marked (**) in this Report are not included in the UKAS Scope for the sub-contractor who performed the test.

Opinions and interpretations expressed herein are outside the scope of UKAS Accreditation.

Note: A sub-contractor whose certification comes under the ILAC agreement would also be marked in the same manner as a UKAS sub-contractor.

Steven Owen
(Laboratory Manager)

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|--|------------------------------------|-----------|-----------|-----------|--|---|
| 9341 ^GLOVES – ABRASION RESISTANCE (EN 388:2016 6.1) | | | | | | |
| SAMPLE | Results | | | | Performance Levels | |
| Rope Op Gloves | Holes developed before 8000 cycles | | | | Level 1: greater than 100 less than 500 cycles Level 2: greater than 500 less than 2000 cycles Level 3: greater than 2000 less than 8000 cycles Level 4: greater than 8000 cycles | |
| 9342 GLOVES - BLADE CUT RESISTANCE (EN 388:2016 6.2) | | | | | | |
| SAMPLE | RESULTS | | | | | Performance Level: |
| Rope Op Gloves | Sample 1 | | | | | Level 1: 1.2 Level 2: 2.5 Level 3: 5.0 Level 4: 10.0 Level 5: 20.0 : |
| | I1 | I2 | I3 | I4 | I5 | |
| | 2.3 | 2.1 | 1.8 | 1.2 | 1.2 | |
| | Average Index: 1.7 | | | | | |
| | Sample 2 | | | | | |
| | I6 | I7 | I8 | I9 | I10 | |
| | 1.2 | 1.2 | 1.4 | 2.3 | 2.3 | |
| Average Index: 1.7 | | | | | | |
| 9343 GLOVES – TEAR STRENGTH (EN 388:2016 6.4) | | | | | | |
| SAMPLE | Results | | | | Performance Levels | |
| Rope Op Gloves | 35 N | | | | Level 1: >10 N Level 2: >25 N Level 3: >50 N Level 4: >75 N | |
| 9340 GLOVES – PUNCTURE RESISTANCE (EN 388:2016 6.5) | | | | | | |
| SAMPLE | Results | | | | Performance Levels | |
| Rope Op Gloves | 61 N | | | | Level 1: >20 N Level 2: >60 N Level 3: >100 N Level 4: >150 N | |
| 9490 GLOVES – DESIGN AND CONSTRUCTION BS EN 420:2003 + A1: 2009 | | | | | | |
| SAMPLE | Results | | | | REQUIREMENT | |
| Rope Op Gloves | Meets Requirements | | | | Shall meet the design and construction requirements | |

| 9344 GLOVES - SIZING BS EN 420:2003 + A1: 2009 | | | | | | |
|--|---|--|-----------------------------------|--------------|-------------|------|
| SAMPLE | | Results | | | | |
| Rope Op Gloves | Size: S found to be Size 5 | Size: M found to be Size 6 | Size: L found to be Size 7 | | | |
| | Glove Length: 218 mm | Glove Length: 225 mm | Glove Length: 232 mm | | | |
| 9344 GLOVES - SIZING BS EN 420:2003 + A1: 2009 | | | | | | |
| SAMPLE | | Results | | | | |
| Rope Op Gloves | Size: XL found to be Size 7 | Size: XXL found to be Size 8 | Size: found to be Size | | | |
| | Glove Length: 235 mm | Glove Length: 240 mm | -- | | | |
| 9345 GLOVES - DEXTERITY BS EN 420:2003 + A1: 2009 | | | | | | |
| SAMPLE | | Results | | | | |
| Rope Op Gloves | Specimen 1 | | Specimen 2 | | Specimen 3 | |
| | Left: | 5 mm | Left: | -- | Left: | 5 mm |
| | Right: | -- | Right: | 5 mm | Right: | -- |
| 9345 GLOVES - DEXTERITY BS EN 420:2003 + A1: 2009 | | | | | | |
| SAMPLE | | Results | | | | |
| Rope Op Gloves | Specimen 4 | | Specimen -- | | Specimen -- | |
| | Left: | -- | Left: | -- | Left: | -- |
| | Right: | 5 mm | Right: | -- | Right: | -- |
| 6005 ^PH OF TEXTILE MATERIAL BS EN ISO 3071:2006 / ISO 3071: 2005 | | | | | | |
| SAMPLE | | RESULTS | | REQUIREMENTS | | |
| Rope Op Gloves | pH of Aqueous Extract | | | | 3.5<pH<9.05 | |
| | Sample | | Mean | | | |
| | Black Synthetic Fabric (Palm & Finger). | | 6.7 | | | |
| | Black Fabric (Back). | | 7.0 | | | |
| | Yellow Fabric (Back). | | 7.0 | | | |
| | Black Loop (Velcro). | | 7.1 | | | |
| | Black Hook (Velcro). | | 6.4 | | | |
| | Black Mesh (Back & Finger). | | 6.5 | | | |
| | Black Fabric Binding. | | 6.4 | | | |
| | Temperature of Solution: | | 22.7°C | | | |

| 8022 ^DETECTION OF AMINES DERIVED FROM AZOCOLLOURANTS AND AZODYES BS EN 14362-1: 2012 | | | | | | | | |
|---|------------|---------|----------------|----|----|----|----|----|
| Rope Ops Glove:- 1) Black Synthetic Fabric (Palm & Finger), 2) Black Fabric (Back), 3) Yellow Fabric (Back), 4) Black Loop (Velcro), 5) Black Hook (Velcro), 6) Black Mesh (Back & Finger), 7) Black Fabric Binding | | | | | | | | |
| By Gas Chromatographic – Mass Spectrometric (GC-MS) and High Performance Chromatographic (HPLC) analysis | | | | | | | | |
| METHOD | | | Textile Method | | | | | |
| REQUIREMENTS | | | <30 mg/kg | | | | | |
| Banned Amine In Azo Dyes | CAS Number | Result | | | | | | |
| | | Samples | | | | | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 4-Aminodiphenyl | 92-67-1 | ND | ND | ND | ND | ND | ND | ND |
| Benzidine | 92-87-5 | ND | ND | ND | ND | ND | ND | ND |
| 4-Chloro-O-Toluidine | 95-69-2 | ND | ND | ND | ND | ND | ND | ND |
| 2-Naphthylamine | 91-59-8 | ND | ND | ND | ND | ND | ND | ND |
| *o-Aminoazotoluene | 97-56-3 | ND | ND | ND | ND | ND | ND | ND |
| *2-Amino-4-nitrotoluene | 99-55-8 | ND | ND | ND | ND | ND | ND | ND |
| p-Chloroaniline | 106-47-8 | ND | ND | ND | ND | ND | ND | ND |
| 2,4-Diamino-Anisole | 615-05-4 | ND | ND | ND | ND | ND | ND | ND |
| 4,4'-Diaminodiphenylmethane | 101-77-9 | ND | ND | ND | ND | ND | ND | ND |
| 3,3'-Dichlorobenzidine | 91-94-1 | ND | ND | ND | ND | ND | ND | ND |
| 3,3'-Dimethoxybenzidine | 119-90-4 | ND | ND | ND | ND | ND | ND | ND |
| 3,3'-Dimethylbenzidine | 119-93-7 | ND | ND | ND | ND | ND | ND | ND |
| 4,4'diamino-3,3'-dimethylphenyl methane | 838-88-0 | ND | ND | ND | ND | ND | ND | ND |
| p-Cresidine | 120-71-8 | ND | ND | ND | ND | ND | ND | ND |
| 4,4'-Methylene-bis(2-chloroaniline) | 101-14-4 | ND | ND | ND | ND | ND | ND | ND |
| 4,4'-Oxydianiline | 101-80-4 | ND | ND | ND | ND | ND | ND | ND |
| 4,4'-Thiodianiline | 139-65-1 | ND | ND | ND | ND | ND | ND | ND |
| o-Toluidine | 95-53-4 | ND | ND | ND | ND | ND | ND | ND |
| 2,4-toluylenediamine | 95-80-7 | ND | ND | ND | ND | ND | ND | ND |
| 2,4,5-Trimethyl aniline | 137-17-7 | ND | ND | ND | ND | ND | ND | ND |
| o-Anisidine | 90-04-0 | ND | ND | ND | ND | ND | ND | ND |
| **P-aminoazobenzene | 60-09-3 | ND | ND | ND | ND | ND | ND | ND |
| <p>Note:</p> <p>Detection limit: 5 mg/kg ND: Not Detected The allowed limit specified <30 mg/kg</p> <p>** EN 14362-3:2012 / ISO 17234-2: 2011 = P-Aminoazobenzene Method</p> <p>REACH Regulation (EC) NO. 1907/2006 Annex XVII Item 43 and its Amendment No. 552/2009 and 126/2013 (Formerly Known As Directive 2002/61/EC)</p> | | | | | | | | |

| 9493 ^DETERMINATION OF pH in LEATHER BS EN ISO 4045: 2008 | | | |
|--|--------------------------|--------------|------------|
| SAMPLE | RESULTS | REQUIREMENTS | |
| Rope Op Gloves:- Black Leather (Palm) | pH | | 3.5<pH<9.5 |
| | Mean: | 4.25 | |
| | Temperature of Solution: | 22.7°C | |
| 9494 ^DETERMINATION OF CHROMIUM (VI) CONTENT BS EN ISO 17075: 2007 by UV-VIS Spectrophotometer | | | |
| SAMPLE | Results | REQUIREMENT | |
| Rope Op Gloves:- Black Leather (Palm) | Not Detected | <3 mg/kg | |
| ^AZO DYES BS EN ISO 17234-1: 2015 | | | |
| Rope Op Gloves:- Black Leather (Palm) | | | |
| Determination of Certain aromatic Amines derived from azo colourants follows by GC-MS Analysis | | | |
| REQUIREMENTS | <30 mg/kg | | |
| Banned Amine In Azo Dyes | CAS Number | Result | |
| 4-Aminodiphenyl | 92-67-1 | ND | |
| Benzidine | 92-87-5 | ND | |
| 4-Chloro-O-Toluidine | 95-69-2 | ND | |
| 2-Naphthylamine | 91-59-8 | ND | |
| *o-Aminoazotoluene | 97-56-3 | ND | |
| *2-Amino-4-nitrotoluene | 99-55-8 | ND | |
| p-Chloroaniline | 106-47-8 | ND | |
| 2,4-Diamino-Anisole | 615-05-4 | ND | |
| 4,4'-Diaminodiphenylmethane | 101-77-9 | ND | |
| 3,3'-Dichlorobenzidine | 91-94-1 | ND | |
| 3,3'-Dimethoxybenzidine | 119-90-4 | ND | |
| 3,3'-Dimethylbenzidine | 119-93-7 | ND | |
| 4,4'diamino-3,3'-dimethylphenyl methane | 838-88-0 | ND | |
| p-Cresidine | 120-71-8 | ND | |
| 4,4'-Methylene-bis(2-chloroaniline) | 101-14-4 | ND | |
| 4,4'-Oxydianiline | 101-80-4 | ND | |
| 4,4'-Thiodianiline | 139-65-1 | ND | |
| o-Toluidine | 95-53-4 | ND | |
| 2,4-toluylenediamine | 95-80-7 | ND | |
| 2,4,5-Trimethyl aniline | 137-17-7 | ND | |
| o-Anisidine | 90-04-0 | ND | |
| **P-aminoazobenzene | 60-09-3 | ND | |
| Note: | | | |
| Detection limit: 5 mg/kg ND: Not Detected The allowed limit specified <30 mg/kg | | | |
| ** EN 14362-3:2012 / ISO 17234-2: 2011 = P-Aminoazobenzene Method | | | |
| REACH Regulation (EC) NO. 1907/2006 Annex XVII Item 43 and its Amendment No. 552/2009 and 126/2013 (Formerly Known As Directive 2002/61/EC) | | | |



End of Report

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