

NZWTA

No. 1214496.0

(Please quote this number in all correspondence)

| CLIENT: Pan Products Ltd. PO Box 396 | SAMPLE RECEIVED FROM: Pan Products Ltd. | Date: | 19.1.18 |
|--|--|-------|---------|
| Dargaville 0340 | SAMPLE DESCRIPTION: | | |
| Attn.: Nathan Cottle | PCV1508 orange vest, size L. | | |
| Client Order No.: | Client Reference: | | 1 of 7 |

CONFORMANCE TO NZ TRANSPORT AGENCY SPECIFICATIONS, EDITION 4 OF PART 8 CoPTTM, SECTION B, FEBRUARY 2017 (TTMC-W17) & TECHNICAL NOTE: REVISED REQUIREMENT FOR HIGH VISIBILITY GARMENTS, SEPTEMBER 2017

Section B3 High Visibility Garments

| | Conformance |
|---|---|
| Background fabric Compliance, Section B3.1.1 | Conforms |
| (this section is not covered in full by IANZ accreditation) | (as stated by Qualspec report no. CS17070077Revised1) |
| Retro-reflectivity, Section B3.1.2 | Conforms |
| (this section is not covered in by IANZ accreditation) | (as stated by SGS report no. SHSL1302029053TX & NZWTA report no. 1110548.3) |
| Retro-reflectivity, Section B3.1.2 – Orange Red Material for STMS Panel | N/A |
| (this section is not covered in by IANZ accreditation) | |
| Logos, Section B3.2 | Conforms |
| Garment Compliance, Section B3.3 | Conforms |
| Garment Design, Sleeveless Vest Section B3.4.1 | Conforms |
| STMS Sleeveless Vest, Section B3.4.2.1 | N/A |
| MTC Garment Sleeve, Section B3.4.2.2 | N/A |



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C Judan

Signatory

L A Greer Signatory

25/01/2018

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Section B3.1.1 Fabric Colour Compliance

| Requirement | Results | Conformance |
|--|-------------------------|------------------------|
| Background material : | See Qualspec report no. | Conforms |
| Fluorescent or non-fluorescent orange-red or | CS17070077Revised1. | (as stated by Qualspec |
| yellow to conform to AS/NZS 1906.4:2010, | | report) |
| measured both wet and dry, light, | | |
| perspiration and wash fastness. | | |

| Requirement | Results | Conformance |
|---|-------------------------------------|---------------------------------------|
| Retro- reflectivity | See SGS report no. SHSL1302029053TX | Conforms |
| Must comply with specification " R " of AS/NZS 1906.4 :2010 | & NZWTA report no. 1110548.3. | (as stated by SGS 8 NZWTA reports) |
| Retro-reflective orange red material for STMS must comply with the colour specification for Class F background material as noted in Clause B3.1.1. | N/A | N/A |

Section B3.2 Logos

| Requirement | Results | Conformance |
|---|---|-------------|
| Lettering , symbols or logos must be on the upper front left of the garment (N/A to STMS) | N/A | N/A |
| The maximum area of any clear plastic pocket is 7500mm ² (100 x 75 mm) (N/A to STMS). | Size: 97 mm x 72 mm (6,984 mm ²) Placed on the left chest. | Conforms |
| A technical recognition ID, max 30mmx30mm (900 mm ²⁻⁾ may be added to the wearer's upper front right side of the garment. | N/A | N/A |
| A manufacturers label to a maximum size of 50 x 20 mm may be sewn or printed on the lower sleeve on non-high visibility material. | N/A | N/A |



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Section B3.3 Garment Compliance

| Requirement | Results | Conformance |
|---|---|-------------|
| AS/NZS 4602.1:2011 | The tape is a complete horizontal hoop. | Conforms |
| The tape must be a complete horizontal hoop at approximately waist level. A break at the | There is a break at the front of length 22 mm. | |
| front of no more than 25mm is permitted (see also Figures 1 and 2 CoPTTM). | There are no breaks at the sides or in the braces. | |
| Retro-reflective tapes must be no less than 50 mm wide. | The tape is 50 mm wide. | Conforms |
| Compliance must be achieved for a garment size designed to fit a body chest measurement 100-105 cm. | The size submitted is size L. Body chest measurement: 127 cm | Conforms |
| The letters TTMC-W17 must be included on the garment label. | The letters are not included on the garment label. However, the client submitted a layout of the label with TTMC-W17 that will be used in the production process. | Conforms |

Garment Design Section B3.4

Garment Design B3.4.1 Sleeveless vest general requirements – based on AS/NZS 4602.1:2011/Amendment 1:Nov. 2016 with additional requirements.

| Requirement | Results | Conformance |
|--|--|-------------|
| The design must include a shirt tail that is at least 150 ±5mm longer than the front. The shirt tail may be split, provided there is an overlap. | There is a shirt tail on this vest. It is 150 mm longer than the front. | Conforms |
| The minimum qualifying area measurement of background high visibility material for the recognised 100-105 cm test size garment not covered by retro-reflective material or printing must be: | Front – excluding the reflective tapes, orange zip front opening and clear plastic pocket, the background material area is 0.25 m ² . | Conforms |
| Front of garment 0.24 m². Rear of garment including the 150 mm shirt tail 0.30 m². | Back – excluding the reflective tapes, the background material area is 0.35 m ² . | Conforms |
| Overall length at front not to exceed 710mm. | Front length is 710 mm. | Conforms |

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ACCREDITED LABORATORY

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Garment Design - continued B3.4.1 Sleeveless vest

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| Requirement | Results | Conformance |
|---|--|-------------|
| Background high visibility material must | Background high visibility material | Conforms |
| encircle the torso from the top , with no other | encircles the torso from the top. | |
| colour except for: | The exclusions are: | |
| -Specified retro-reflective material | -Specified retro-reflective material | |
| Permitted front opening | -Permitted front opening | |
| Permitted logo and technical ID area | | |
| A permitted front opening to accommodate a | The garment has an orange zip front | Conforms |
| zip fastener or similar closing device may be | opening that is 7 mm wide. The opening is | |
| no wider than 25mm. | down to the entire front of the garment. | |
| Buttons, domes and similar closure devices | | |
| must match the colour of the garment but | | |
| need not to be compliant. | | |
| Compliant retro-reflective material must be | There are vertical strips placed over the | Conforms |
| positioned to comply with the pattern in | shoulders. The strips join up with a hoop | |
| Figures 1 & 2A: | on the front and the back (front - belt and | |
| belt and braces (front & back) or cross | braces pattern / back – cross | |
| configuration at the back. | configuration). | |
| a strip of complying retro-reflective | | |
| material must be located on the back | There is an additional retro-reflective tape | Conforms |
| of the garment from side seam to side | at the bottom of the garment positioned | |
| seam positioned 50 <u>+</u>5mm from the | 51 mm from the bottom hem. | |
| bottom hem. | | |
| each brace must be spaced 170mm | The vertical strips are: | Conforms |
| Minimum apart at the belt, front and back. | front – 289 mm apart | |
| Figure 5 diagrams state that the length from | back – 256 mm apart | |
| the highest point of the shoulder to the waist | | |
| tape must be 530 <u>+</u>20 mm. | Length from the highest point of the | Conforms |
| | shoulder to the bottom waist hoop is: | |
| | front – 540 mm | |
| | back – 545 mm | |
| STMS only – The optional retroreflective | N/A | N/A |
| cross configuration on the back of a garment | | |
| s not permitted. | | |

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Section B3.4.2.1 STMS

| Requirement | Results | Conformance |
|---|---------|-------------|
| The background colour must be fluorescent or non-fluorescent yellow to conform with AS/NZS 1906.4:2010. | N/A | N/A |
| Must be on a retro-reflective orange panel on the back and front left as per Fig 2 – front 150 x 150 mm , back 300 x 150 mm, both ±10 mm Lettering must be black Helvetica Bold Front 50 ±2mm high Back 100 ±2mm high | N/A | N/A |

Optional MTC Garment Sleeve Section B3.4.2.2

| Requirement | Results | Conformance |
|---|---------|-------------|
| The sleeve background colour must be fluorescent or non-fluorescent yellow to conform with AS/NZS 1906.4:2010. | N/A | N/A |
| Must have a compliant retro-reflective hoop on the arm above the elbow and between the elbow and the wrist. | N/A | N/A |



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