

TEST REPORT

Test Report # 19W-009872-2 Date of Report Issue: December 31, 2019
Date of Sample Received: July 1, 2019 Pages: Page 1 of 46

CLIENT INFORMATION:

Company: Spector & Co.
Address: -



SAMPLE INFORMATION:

Description: TOTAL ACCESS BACK PACK
Assortment: BACKPACK
Model/style No.: BG118
PO No.: PO# 7107100
SKU No.: -
Item No./Item Name: COLLECTION X
Factory/Supplier: USH045
Country of Origin: China
Country of Distribution: United States, Canada
Testing Period: 07/04/2019-07/15/2019,10/16/2019-10/22/2019,11/01/2019-11/07/2019,
12/04/2019-12/13/2019,12/25/2019-12/31/2019

OVERALL RESULT:

**PASS With
INFORMATION**

Please refer to the following pages for test result summary and appropriate notes.

QIMA (HANGZHOU) TESTING CO., LTD.

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Test(s) marked with 'φ' was subcontracted to external laboratory.

The test result(s) and conclusion(s) in this report relate only to the sample(s) as received and method /regulation section(s) tested as described herein.

If it is not further specified in the report, the decision rule for stating conformity is based on the QIMA decision rule.

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TEST RESULTS SUMMARY:

At the request of the client, the following tests were conducted:

CONCLUSION	TEST(S) CONDUCTED
PASS	California Proposition 65, Total Lead in Substrate Materials
PASS	Canadian Consumer Products Containing Lead Regulations (SOR/2018-83), Total Lead Content
PASS	California Proposition 65, Total Cadmium in Substrate Materials
PASS	California Proposition 65, Phthalates (DBP, BBP, DEHP, DINP, DIDP, DnHP)
PASS	CPSC 16 CFR 1307 Prohibition of Children’s Toys and Child Care Articles Containing Specified Phthalates(DBP, BBP, DEHP, DINP, DHEXP / DnHP, DCHP, DIBP, DPENP)
PASS	Client’s Requirement, Phthalates content
PASS	19 CFR 134.11, Country of Origin
PASS	Marking of Imported Goods Order, (C.R.C., c.535), Country of Origin
PASS	Charter of French Language, (R.S.Q., c.C-11), Province of Quebec Labeling
PASS	Color Fastness to Crocking
PASS	Color Fastness to Water
PASS	Color Fastness to Light
Information only	Dimensions
Information only	The capacity in liters for bag
Information only	Article Weight
PASS	Defects
PASS	Workmanship
PASS	SOR/2016-194 and Method F01 Flammability of Textile Products
Information only	Fabric Weight Per Unit Area
PASS	Tensile Strength
PASS	Tearing Strength
PASS	Bursting Strength
PASS	Seam Strength
PASS	Abrasion Resistance
PASS	Pilling Resistance



TEST RESULTS SUMMARY:

At the request of the client, the following tests were conducted:

CONCLUSION	TEST(S) CONDUCTED
PASS	Zipper Strength ^φ
PASS	Zipper Operability
PASS	Shear Strength Of Hook & Loop ^φ
PASS	Peeling Strength of Hooks ^φ
PASS	Water Repellency-Spray Test
PASS	Water Resistance –Rain Test
Information only	Fiber Content
PASS	Client’s Requirement for Static Load Test



DETAILED RESULTS:

California Proposition 65, Total Lead in Substrate Materials

Test Method: CPSC-CH-E1001-08.3 (Metal), CPSC-CH-E1002-08.3 (Non-Metal)
 Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	1+2+20	3+5+10	4+11	6	7	Limit (mg/kg)
Test Item	Result (mg/kg)					
Total Lead (Pb)	ND	ND	ND	26	26	100
Conclusion	PASS	PASS	PASS	PASS	PASS	

Specimen No.	8	9	12+13+14	15+16+17	18+19+29	Limit (mg/kg)
Test Item	Result (mg/kg)					
Total Lead (Pb)	25	26	ND	ND	ND	100
Conclusion	PASS	PASS	PASS	PASS	PASS	

Specimen No.	21+22+23	24	25	26	27	Limit (mg/kg)
Test Item	Result (mg/kg)					
Total Lead (Pb)	ND	ND	ND	ND	ND	100
Conclusion	PASS	PASS	PASS	PASS	PASS	

Note:

mg/kg =Milligrams per kilogram

LT = Less than

ND = Not detected (Reporting Limit =15 mg/kg)

Composite results are based on specimen of least mass resulting in highest potential concentration.

Remark:

The specification is quoted from client's requirement.



DETAILED RESULTS:

California Proposition 65, Total Lead in Substrate Materials

Test Method: CPSC-CH-E1001-08.3 (Metal), CPSC-CH-E1002-08.3 (Non-Metal)
Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	28	---	---	---	---	Limit (mg/kg)
Test Item	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
Total Lead (Pb)	ND	---	---	---	---	100
Conclusion	PASS	---	---	---	---	

Note:

mg/kg =Milligrams per kilogram

LT = Less than

ND = Not detected (Reporting Limit =15 mg/kg)

Composite results are based on specimen of least mass resulting in highest potential concentration.

Remark:

The specification is quoted from client's requirement.



DETAILED RESULTS:

Canadian Consumer Products Containing Lead Regulations (SOR/2018-83), Total Lead Content

Test Method: ASTM F963-17 Clause 8.3.1
 Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	1+2+20	4+11	6	7	8	Limit (mg/kg)
Test Item	Result (mg/kg)					
Total Lead (Pb)	ND	ND	26	26	25	90
Conclusion	PASS	PASS	PASS	PASS	PASS	

Specimen No.	9	18+19+29	24	26	28	Limit (mg/kg)
Test Item	Result (mg/kg)					
Total Lead (Pb)	26	ND	ND	ND	ND	90
Conclusion	PASS	PASS	PASS	PASS	PASS	

Note:

mg/kg=Milligrams per kilogram)

LT = Less than

ND = Not detected (Reporting Limit = 15 mg/kg)

Composite results are based on specimen of least mass resulting in highest potential concentration.



DETAILED RESULTS:

California Proposition 65, Total Cadmium in Substrate Materials

Test Method: ASTM F963-17 Clause 8.3.1
 Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	1+2+20	3+5+10	4+11	6	7	Limit (mg/kg)
Test Item	Result (mg/kg)					
Total Cadmium (Cd)	ND	ND	ND	ND	ND	75
Conclusion	PASS	PASS	PASS	PASS	PASS	

Specimen No.	8	9	12+13+14	15+16+17	18+19+29	Limit (mg/kg)
Test Item	Result (mg/kg)					
Total Cadmium (Cd)	ND	ND	ND	ND	ND	75
Conclusion	PASS	PASS	PASS	PASS	PASS	

Specimen No.	21+22+23	24	25	26	27	Limit (mg/kg)
Test Item	Result (mg/kg)					
Total Cadmium (Cd)	ND	ND	ND	ND	ND	75
Conclusion	PASS	PASS	PASS	PASS	PASS	

Note:

mg/kg =Milligrams per kilogram

LT = Less than

ND = Not detected (Reporting Limit = 15 mg/kg)

Composite results are based on specimen of least mass resulting in highest potential concentration.

Remark:

The specification is quoted from client’s requirement.



DETAILED RESULTS:

California Proposition 65, Total Cadmium in Substrate Materials

Test Method: ASTM F963-17 Clause 8.3.1
Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	28	---	---	---	---	Limit (mg/kg)
Test Item	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
Total Cadmium (Cd)	ND	---	---	---	---	75
Conclusion	PASS	---	---	---	---	

Note:

mg/kg =Milligrams per kilogram

LT = Less than

ND = Not detected (Reporting Limit = 15 mg/kg)

Composite results are based on specimen of least mass resulting in highest potential concentration.

Remark:

The specification is quoted from client's requirement.



DETAILED RESULTS:

California Proposition 65, Phthalates (DBP, BBP, DEHP, DINP, DIDP, DnHP)

Test Method: CPSC-CH-C1001-09.4
 Analytical Method: Gas Chromatography with Mass Spectrometry

Specimen No.		1+2+20	3+5+10	4+11	12+13+14	Limit (mg/kg)
Test Item	CAS No.	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
Dibutyl phthalate (DBP)	84-74-2	ND	ND	ND	ND	1000
Benzyl butyl phthalate (BBP)	85-68-7	ND	ND	ND	ND	1000
Di-(2-ethylhexyl) phthalate (DEHP)	117-81-7	ND	ND	ND	ND	1000
Diisononyl phthalate (DINP)	28553-12-0 68515-48-0	ND	ND	ND	ND	1000
Diisodecyl phthalate (DIDP)	26761-40-0 68515-49-1	ND	ND	ND	ND	1000
Di-n-hexyl phthalate (DnHP)	84-75-3	ND	ND	ND	ND	1000
Conclusion		PASS	PASS	PASS	PASS	

Note:

mg/kg (Milligrams per kilogram) = 0.0001 % m/m (Percent by mass)

LT = Less than

ND = Not detected (Reporting Limit = 150 mg/kg)

Composite results are based on specimen of least mass resulting in highest potential concentration.

Remark:

The specification is quoted from client's requirement.



DETAILED RESULTS:

California Proposition 65, Phthalates (DBP, BBP, DEHP, DINP, DIDP, DnHP)

Test Method: CPSC-CH-C1001-09.4
 Analytical Method: Gas Chromatography with Mass Spectrometry

Specimen No.		15+16+17	18+19+29	21+22+23	24	Limit (mg/kg)
Test Item	CAS No.	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
Dibutyl phthalate (DBP)	84-74-2	ND	ND	ND	ND	1000
Benzyl butyl phthalate (BBP)	85-68-7	ND	ND	ND	ND	1000
Di-(2-ethylhexyl) phthalate (DEHP)	117-81-7	ND	ND	ND	ND	1000
Diisononyl phthalate (DINP)	28553-12-0 68515-48-0	ND	ND	ND	ND	1000
Diisodecyl phthalate (DIDP)	26761-40-0 68515-49-1	ND	ND	ND	ND	1000
Di-n-hexyl phthalate (DnHP)	84-75-3	ND	ND	ND	ND	1000
Conclusion		PASS	PASS	PASS	PASS	

Note:

mg/kg (Milligrams per kilogram) = 0.0001 % m/m (Percent by mass)

LT = Less than

ND = Not detected (Reporting Limit = 150 mg/kg)

Composite results are based on specimen of least mass resulting in highest potential concentration.

Remark:

The specification is quoted from client's requirement.



DETAILED RESULTS:

California Proposition 65, Phthalates (DBP, BBP, DEHP, DINP, DIDP, DnHP)

Test Method: CPSC-CH-C1001-09.4
 Analytical Method: Gas Chromatography with Mass Spectrometry

Specimen No.		25	26	27	28	Limit (mg/kg)
Test Item	CAS No.	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
Dibutyl phthalate (DBP)	84-74-2	ND	ND	ND	ND	1000
Benzyl butyl phthalate (BBP)	85-68-7	ND	ND	ND	ND	1000
Di-(2-ethylhexyl) phthalate (DEHP)	117-81-7	ND	ND	ND	ND	1000
Diisononyl phthalate (DINP)	28553-12-0 68515-48-0	ND	ND	ND	ND	1000
Diisodecyl phthalate (DIDP)	26761-40-0 68515-49-1	ND	ND	ND	ND	1000
Di-n-hexyl phthalate (DnHP)	84-75-3	ND	ND	ND	ND	1000
Conclusion		PASS	PASS	PASS	PASS	

Note:

mg/kg (Milligrams per kilogram) = 0.0001 % m/m (Percent by mass)

LT = Less than

ND = Not detected (Reporting Limit = 150 mg/kg)

Remark:

The specification is quoted from client's requirement.



DETAILED RESULTS:

CPSC 16 CFR 1307 Prohibition of Children’s Toys and Child Care Articles Containing Specified Phthalates (DBP, BBP, DEHP, DINP, DHEXP / DnHP, DCHP, DIBP, DPENP)

Test Method: CPSC-CH-C1001-09.4(Modified), In-House Method
 Analytical Method: Gas Chromatography with Mass Spectrometry

Specimen No.		1+2+20	4+11	18+19+29	24	Limit (mg/kg)
Test Item	CAS No.	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
Dibutyl phthalate (DBP)	84-74-2	ND	ND	ND	ND	1000
Benzyl butyl phthalate (BBP)	85-68-7	ND	ND	ND	ND	1000
Di-(2-ethylhexyl) phthalate (DEHP)	117-81-7	ND	ND	ND	ND	1000
Diisononyl phthalate (DINP)	28553-12-0 68515-48-0	ND	ND	ND	ND	1000
Di-n-hexyl phthalate (DHEXP / DnHP)	84-75-3	ND	ND	ND	ND	1000
Dicyclohexyl phthalate (DCHP)	84-61-7	ND	ND	ND	ND	1000
Diisobutyl phthalate (DIBP)	84-69-5	ND	ND	ND	ND	1000
Di-n-pentyl phthalate (DPENP)	131-18-0	ND	ND	ND	ND	1000
Conclusion		PASS	PASS	PASS	PASS	

Note:

mg/kg = Milligrams per kilogram

LT = Less than

ND = Not detected (Reporting Limit = 150 mg/kg)

Composite results are based on specimen of least mass resulting in highest potential concentration.



DETAILED RESULTS:

CPSC 16 CFR 1307 Prohibition of Children’s Toys and Child Care Articles Containing Specified Phthalates (DBP, BBP, DEHP, DINP, DHEXP / DnHP, DCHP, DIBP, DPENP)

Test Method: CPSC-CH-C1001-09.4(Modified), In-House Method
 Analytical Method: Gas Chromatography with Mass Spectrometry

Specimen No.		26	28	---	---	Limit (mg/kg)
Test Item	CAS No.	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
Dibutyl phthalate (DBP)	84-74-2	ND	ND	---	---	1000
Benzyl butyl phthalate (BBP)	85-68-7	ND	ND	---	---	1000
Di-(2-ethylhexyl) phthalate (DEHP)	117-81-7	ND	ND	---	---	1000
Diisononyl phthalate (DINP)	28553-12-0 68515-48-0	ND	ND	---	---	1000
Di-n-hexyl phthalate (DHEXP / DnHP)	84-75-3	ND	ND	---	---	1000
Dicyclohexyl phthalate (DCHP)	84-61-7	ND	ND	---	---	1000
Diisobutyl phthalate (DIBP)	84-69-5	ND	ND	---	---	1000
Di-n-pentyl phthalate (DPENP)	131-18-0	ND	ND	---	---	1000
Conclusion		PASS	PASS	---	---	

Note:

mg/kg = Milligrams per kilogram

LT = Less than

ND = Not detected (Reporting Limit = 150 mg/kg)



DETAILED RESULTS:

Client's Requirement, Phthalates content

Test Method: CPSC-CH-C1001-09.4
 Analytical Method: Gas Chromatography with Mass Spectrometry

Specimen No.		1+2+20	4+11	18+19+29	24	Limit (mg/kg)
Test Item	CAS No.	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
Dibutyl phthalate (DBP)	84-74-2	ND	ND	ND	ND	1000
Benzyl butyl phthalate (BBP)	85-68-7	ND	ND	ND	ND	1000
Di-(2-ethylhexyl) phthalate (DEHP)	117-81-7	ND	ND	ND	ND	1000
Diisononyl phthalate (DINP)	28553-12-0 68515-48-0	ND	ND	ND	ND	1000
Diisodecyl phthalate (DIDP)	26761-40-0 68515-49-1	ND	ND	ND	ND	1000
Di-n-hexyl phthalate (DHEXP / DnHP)	84-75-3	ND	ND	ND	ND	1000
Di-n-octyl phthalate (DNOP)	117-84-0	ND	ND	ND	ND	1000
Diethyl phthalate (DEP)	84-66-2	ND	ND	ND	ND	1000
Diisobutyl phthalate (DIBP)	84-69-5	ND	ND	ND	ND	1000
Dicyclohexyl phthalate (DCHP)	84-61-7	ND	ND	ND	ND	1000
Di-n-pentyl phthalate (DPENP/DnPP)	131-18-0	ND	ND	ND	ND	1000
Conclusion		PASS	PASS	PASS	PASS	

Note:

mg/kg (Milligrams per kilogram) = 0.0001 % m/m (Percent by mass)

LT = Less than

ND = Not detected (Reporting Limit = 150 mg/kg)

Composite results are based on specimen of least mass resulting in highest potential concentration.

Remark:

The specification is quoted from client's requirement.



DETAILED RESULTS:

Client's Requirement, Phthalates content

Test Method: CPSC-CH-C1001-09.4
 Analytical Method: Gas Chromatography with Mass Spectrometry

Specimen No.		26	28	---	---	Limit (mg/kg)
Test Item	CAS No.	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
Dibutyl phthalate (DBP)	84-74-2	ND	ND	---	---	1000
Benzyl butyl phthalate (BBP)	85-68-7	ND	ND	---	---	1000
Di-(2-ethylhexyl) phthalate (DEHP)	117-81-7	ND	ND	---	---	1000
Diisononyl phthalate (DINP)	28553-12-0 68515-48-0	ND	ND	---	---	1000
Diisodecyl phthalate (DIDP)	26761-40-0 68515-49-1	ND	ND	---	---	1000
Di-n-hexyl phthalate (DHEXP / DnHP)	84-75-3	ND	ND	---	---	1000
Di-n-octyl phthalate (DNOP)	117-84-0	ND	ND	---	---	1000
Diethyl phthalate (DEP)	84-66-2	ND	ND	---	---	1000
Diisobutyl phthalate (DIBP)	84-69-5	ND	ND	---	---	1000
Dicyclohexyl phthalate (DCHP)	84-61-7	ND	ND	---	---	1000
Di-n-pentyl phthalate (DPENP/DnPP)	131-18-0	ND	ND	---	---	1000
Conclusion		PASS	PASS	---	---	

Note:

mg/kg (Milligrams per kilogram) = 0.0001 % m/m (Percent by mass)

LT = Less than

ND = Not detected (Reporting Limit = 150 mg/kg)

Remark:

The specification is quoted from client's requirement.



DETAILED RESULTS:

19 CFR 134.11, Country of Origin

Specimen No.	30	31	Conclusion
Test	Observation	Observation	
Country of Origin	Present on label	Present on label	PASS

Marking of Imported Goods Order, (C.R.C., c.535), Country of Origin

Specimen No.	30	31	Conclusion
Section	Requirement	Requirement	
2	Present on label	Present on label	PASS

Charter of French Language, (R.S.Q., c.C-11), Province of Quebec Labeling

Specimen No.	30	31	Conclusion
Clause	Test	Test	
c.C-11	French Labeling	French Labeling	PASS

Color Fastness to Crocking

Test Method: AATCC 8-2016

Specimen No.	30-Grey shell fabric	31-Black shell fabric	30-Strap	31-Strap	30-Black inner mesh	Client's requirement (Grade)
Items	Result (Grade)	Result (Grade)	Result (Grade)	Result (Grade)	Result (Grade)	
Dry staining	4.5	4.5	4.5	4.5	4.5	Min. 4.0
Wet staining	4.5	4.5	4.5	4.5	4.5	Min. 2.5
Conclusion	PASS	PASS	PASS	PASS	PASS	-

Remark: Grey Scale rating is based on the 5-step scale of 1 to 5, where 1 is bad and 5 is good.



DETAILED RESULTS:

Color Fastness to Crocking

Test Method: AATCC 8-2016

Specimen No.	31-Black inner mesh	30-Grey main lining	31-Blue main lining	30-Back mesh	31-Back mesh	Client's requirement (Grade)
Items	Result (Grade)	Result (Grade)	Result (Grade)	Result (Grade)	Result (Grade)	
Dry staining	4.5	4.5	4.5	4.0	4.0	Min. 4.0
Wet staining	4.5	4.5	4.5	4.5	4.5	Min. 2.5
Conclusion	PASS	PASS	PASS	PASS	PASS	-

Remark: Grey Scale rating is based on the 5-step scale of 1 to 5, where 1 is bad and 5 is good.

Color Fastness to Water

Test Method: AATCC 107-2013

Specimen No.	30-Grey shell fabric	31-Black shell fabric	30-Strap	31-Strap	30-Black inner mesh	Client's requirement (Grade)
Items	Result (Grade)	Result (Grade)	Result (Grade)	Result (Grade)	Result (Grade)	
Change in shade	4.5	4.5	4.5	4.5	4.5	Min. 4.0
Staining on multi-fiber stripe						
-Acetate	4.5	4.0	4.5	4.5	4.0	Min. 3.5
-Cotton	4.5	4.5	4.5	4.5	4.5	Min. 3.5
-Nylon	4.5	4.5	4.5	4.5	4.0	Min. 3.5
-Polyester	4.5	4.5	4.5	4.5	4.5	Min. 3.5
-Acrylic	4.5	4.5	4.5	4.5	4.5	Min. 3.5
-Wool	4.5	4.5	4.5	4.5	4.5	Min. 3.5
Conclusion	PASS	PASS	PASS	PASS	PASS	-

Remark: Grey scale rating is based on the 5-step of 1 to 5, where 1 is bad and 5 is good.



DETAILED RESULTS:

Color Fastness to Water

Test Method: AATCC 107-2013

Specimen No.	31-Black inner mesh	30-Grey main lining	31-Blue main lining	30-Back mesh	31-Back mesh	Client's requirement (Grade)
Items	Result (Grade)	Result (Grade)	Result (Grade)	Result (Grade)	Result (Grade)	
Change in shade	4.5	4.5	4.5	4.5	4.5	Min. 4.0
Staining on multi-fiber stripe						
-Acetate	4.0	4.5	4.5	4.0	4.0	Min. 3.5
-Cotton	4.5	4.5	4.5	4.5	4.5	Min. 3.5
-Nylon	4.0	4.5	4.5	4.5	4.5	Min. 3.5
-Polyester	4.5	4.5	4.5	4.5	4.5	Min. 3.5
-Acrylic	4.5	4.5	4.5	4.5	4.5	Min. 3.5
-Wool	4.5	4.5	4.5	4.5	4.5	Min. 3.5
Conclusion	PASS	PASS	PASS	PASS	PASS	-

Remark: Grey scale rating is based on the 5-step of 1 to 5, where 1 is bad and 5 is good.

Color Fastness to Light

Test Method: AATCC 16.3-2014; Option 3; Xenon Arc Lamp.

Specimen No.	42	31-Black shell fabric	30-Strap	31-Strap	---	Client's requirement (Grade)
Items	Result (Grade)	Result (Grade)	Result (Grade)	Result (Grade)	Result (Grade)	
After 20 AFU Change in shade	4.0	4.5	4.5	4.5	---	Min. 4.0
Conclusion	PASS	PASS	PASS	PASS	---	-

Remarks: Grey scale rating is based on the 5-step of 1 to 5, where 1 is bad and 5 is good.



DETAILED RESULTS:

Dimensions

Test Method: IHTM, Standard Measure;

Specimen No.	30	31	Client's requirement
Items	Result (inch)	Result (inch)	
Length	11 ⁶ / ₈	11 ⁵ / ₈	N/A
Width	7 ¹ / ₈	7	
Height	19 ¹ / ₈	18 ⁷ / ₈	
Conclusion	Information only	Information only	-

The capacity in liters for bag

Test Method: IHTM, Standard Measure;

Specimen No.	30	31	Client's requirement
Items	Result (liter)	Result (liter)	
Capacity	24.5	23.5	N/A
Conclusion	Information only	Information only	-



DETAILED RESULTS:

Article Weight

Test Method: IHTM 010

Specimen No.	30	31	Client's requirement
Items	Result	Result	
Article Weight (g/piece)	766	763	N/A
Conclusion	Information only	Information only	-

Defects

Test Method: ASTM D3990 – 12(2016); Visual Examination

Specimen No.	30	31	Requirement
Item	Result	Result	
Observation	No major defect	No major defect	Visual examination to verify noticeable defects (such as missing components, obvious knitting /weaving defects, improper functioning component).
Conclusion	PASS	PASS	-



DETAILED RESULTS:

Workmanship

Test Method: IHTM-TXHZ; Visual Examination

Specimen No.	30	31	Requirement
Item	Result	Result	
Observation	No major poor workmanship	No major poor workmanship	Visual examination to verify noticeable poor Workmanship (such as: Poor sewing: Broken seam Missing stitches or Skipped / Uneven /wave stitches or stitched holes on visible area. Insecure back stitches / Uneven stitch tension / Needle chewing Misaligned seam. Poor riveting metal eyelet or other metal parts Dirty / Glue/ Scratch / Wrinkle / Pen Mark / Oil Stain / Water Stain The inside hiding thread expose. Poor electro-plating or spraying on handle metal plate Obvious Scratched mark on extendable handle or metal plate Fabric , webbing band or strap getting discoloration
Conclusion	PASS	PASS	-



DETAILED RESULTS:

SOR/2016-194 and Method F01 Flammability of Textile Products

Test Method: CAN/CGSB-4.2 No.27.5-2008

Specimen No.	30-Grey shell fabric				Face Length
Preliminary Tests	<u>Fabric Surface</u>	Smooth	<u>Test Specimen Direction</u>		
Items	Result				Client's requirement
	<u>As Received</u>		<u>After Dry-cleaning and Laundering*</u>		
	<u>Flame Spread (sec.)</u>	<u>Burn Code</u>	<u>Flame Spread (sec.)</u>	<u>Burn Code</u>	
(1)	-	DNI	-	DNI	>3.5s
(2)	-	DNI	-	DNI	
(3)	-	DNI	-	DNI	
(4)	-	DNI	-	DNI	
(5)	-	DNI	-	DNI	
(6)	-	DNI	-	DNI	
(7)	-	DNI	-	DNI	
(8)	-	DNI	-	DNI	
(9)	-	DNI	-	DNI	
(10)	-	DNI	-	DNI	
Conclusion	PASS				

* Dry-cleaning / Laundering procedure is according to CAN/CGSB-4.2 No.30.3-94 & CAN/CGSB-4.2 No.58-2004; Machine wash at 50°C and tumble dry on the normal setting.

Burn Code Description:

DNI = Did not ignite;



DETAILED RESULTS:

SOR/2016-194 and Method F01 Flammability of Textile Products

Test Method: CAN/CGSB-4.2 No.27.5-2008

Specimen No.	33				
Preliminary Tests	<u>Fabric Surface</u>	Smooth	<u>Test Specimen Direction</u>		Face Length
Items	Result				Client's requirement
	<u>As Received</u>		<u>After Dry-cleaning and Laundering*</u>		
	<u>Flame Spread (sec.)</u>	<u>Burn Code</u>	<u>Flame Spread (sec.)</u>	<u>Burn Code</u>	
(1)	-	DNI	-	DNI	>3.5s
(2)	-	DNI	-	DNI	
(3)	-	DNI	-	DNI	
(4)	-	DNI	-	DNI	
(5)	-	DNI	-	DNI	
(6)	-	DNI	-	DNI	
(7)	-	DNI	-	DNI	
(8)	-	DNI	-	DNI	
(9)	-	DNI	-	DNI	
(10)	-	DNI	-	DNI	
Conclusion	PASS				

* Dry-cleaning / Laundering procedure is according to CAN/CGSB-4.2 No.30.3-94 & CAN/CGSB-4.2 No.58-2004; Machine wash at 50°C and tumble dry on the normal setting.

Burn Code Description:

DNI = Did not ignite;



DETAILED RESULTS:

SOR/2016-194 and Method F01 Flammability of Textile Products

Test Method: CAN/CGSB-4.2 No.27.5-2008

Specimen No.	34				
Preliminary Tests	<u>Fabric Surface</u>	Smooth	<u>Test Specimen Direction</u>		Face Length
Items	Result				Client's requirement
	<u>As Received</u>		<u>After Dry-cleaning and Laundering*</u>		
	<u>Flame Spread (sec.)</u>	<u>Burn Code</u>	<u>Flame Spread (sec.)</u>	<u>Burn Code</u>	
(1)	-	IBE	-	IBE	>3.5s
(2)	-	IBE	-	IBE	
(3)	-	IBE	-	IBE	
(4)	-	IBE	-	IBE	
(5)	-	IBE	-	IBE	
(6)	-	IBE	-	IBE	
(7)	-	IBE	-	IBE	
(8)	-	IBE	-	IBE	
(9)	-	IBE	-	IBE	
(10)	-	IBE	-	IBE	
Conclusion	PASS				

* Dry-cleaning / Laundering procedure is according to CAN/CGSB-4.2 No.30.3-94 & CAN/CGSB-4.2 No.58-2004; Machine wash at 50°C and tumble dry on the normal setting.

Burn Code Description:

IBE = Ignited but extinguished;



DETAILED RESULTS:

SOR/2016-194 and Method F01 Flammability of Textile Products

Test Method: CAN/CGSB-4.2 No.27.5-2008

Specimen No.	35				
Preliminary Tests	<u>Fabric Surface</u>	Smooth	<u>Test Specimen Direction</u>		Face Length
Items	Result				Client's requirement
	<u>As Received</u>		<u>After Dry-cleaning and Laundering*</u>		
	<u>Flame Spread (sec.)</u>	<u>Burn Code</u>	<u>Flame Spread (sec.)</u>	<u>Burn Code</u>	
(1)	-	IBE	-	IBE	>3.5s
(2)	-	IBE	-	IBE	
(3)	-	IBE	-	IBE	
(4)	-	IBE	-	IBE	
(5)	-	IBE	-	IBE	
(6)	-	IBE	-	IBE	
(7)	-	IBE	-	IBE	
(8)	-	IBE	-	IBE	
(9)	-	IBE	-	IBE	
(10)	-	IBE	-	IBE	
Conclusion	PASS				

* Dry-cleaning / Laundering procedure is according to CAN/CGSB-4.2 No.30.3-94 & CAN/CGSB-4.2 No.58-2004; Machine wash at 50°C and tumble dry on the normal setting.

Burn Code Description:

IBE = Ignited but extinguished;



DETAILED RESULTS:

SOR/2016-194 and Method F01 Flammability of Textile Products

Test Method: CAN/CGSB-4.2 No.27.5-2008

Specimen No.	36				
Preliminary Tests	<u>Fabric Surface</u>	Smooth	<u>Test Specimen Direction</u>		Face Length
Items	Result				Client's requirement
	<u>As Received</u>		<u>After Dry-cleaning and Laundering*</u>		
	<u>Flame Spread (sec.)</u>	<u>Burn Code</u>	<u>Flame Spread (sec.)</u>	<u>Burn Code</u>	
(1)	15.9	-	14.8	-	>3.5s
(2)	15.2	-	15.7	-	
(3)	15.1	-	15.2	-	
(4)	15.4	-	14.9	-	
(5)	14.9	-	15.8	-	
(Avg.)	15.3	-	15.3	-	
Conclusion	PASS				

* Dry-cleaning / Laundering procedure is according to CAN/CGSB-4.2 No.30.3-94 & CAN/CGSB-4.2 No.58-2004; Machine wash at 50°C and tumble dry on the normal setting.



DETAILED RESULTS:

SOR/2016-194 and Method F01 Flammability of Textile Products

Test Method: CAN/CGSB-4.2 No.27.5-2008

Specimen No.	37				
Preliminary Tests	<u>Fabric Surface</u>	Smooth	<u>Test Specimen Direction</u>		Face Length
Items	Result				Client's requirement
	<u>As Received</u>		<u>After Dry-cleaning and Laundering*</u>		
	<u>Flame Spread (sec.)</u>	<u>Burn Code</u>	<u>Flame Spread (sec.)</u>	<u>Burn Code</u>	
(1)	-	IBE	-	IBE	>3.5s
(2)	-	IBE	-	IBE	
(3)	-	IBE	-	IBE	
(4)	-	IBE	-	IBE	
(5)	-	IBE	-	IBE	
(6)	-	IBE	-	IBE	
(7)	-	IBE	-	IBE	
(8)	-	IBE	-	IBE	
(9)	-	IBE	-	IBE	
(10)	-	IBE	-	IBE	
Conclusion	PASS				

* Dry-cleaning / Laundering procedure is according to CAN/CGSB-4.2 No.30.3-94 & CAN/CGSB-4.2 No.58-2004; Machine wash at 50°C and tumble dry on the normal setting.

Burn Code Description:

IBE = Ignited but extinguished;



DETAILED RESULTS:

Fabric Weight Per Unit Area

Test Method: ASTM D3776/D3776M-09a(R2017), Option C;

Specimen No.	32*	33	34	35	36	Client's requirement
Items	Result	Result	Result	Result	Result	
(g/m ²)	342	335	83.3	82.8	169	N/A
(oz/yd ²)	10.1	9.88	2.46	2.44	4.98	N/A
Conclusion	Information only	-				

Specimen No.	37	---	---	---	---	Client's requirement
Items	Result	Result	Result	Result	Result	
(g/m ²)	359	---	---	---	---	N/A
(oz/yd ²)	10.6	---	---	---	---	N/A
Conclusion	Information only	---	---	---	---	-

Remark: *: This sample is not from the product, but a newly received sample

Tensile Strength

Test Method: ASTM D5034-09(R2017); Instron CRE – 1” Grab

Specimen No.	32*	33	34	35	---	Client's requirement (lbf)
Items	Result (lbf)					
Warp	589.8	581.4	145.7	143.9	---	Min. 25
Weft	488.1	460.5	131.9	124.6	---	Min. 25
Conclusion	PASS	PASS	PASS	PASS	---	-

Remark: *: This sample is not from the product, but a newly received sample



DETAILED RESULTS:

Tearing Strength

Test Method: ASTM D1424-09(R2013); Elmendorf

Specimen No.	32*	33	34	35	---	Client's requirement (lbf)
Items	Result (lbf)					
Warp yarns torn	>14.1	>14.1	5.0	5.1	---	Min. 1.5
Weft yarns torn	>14.1	>14.1	4.2	4.5	---	Min. 1.5
Conclusion	PASS	PASS	PASS	PASS	---	-

Note:

- (1) Warp test – test in which the Warp yarns are torn.
Weft test – test in which the Weft yarns are torn.
- (2) The maximum capacity of the tester is 14.1lbf
- (3) *: This sample is not from the product, but a newly received sample

Bursting Strength

Test Method: ASTM D3786/D3786M-18; Mullen Bursting Tester

Specimen No.	37	---	---	---	---	Client's requirement
Items	Result	Result	Result	Result	Result	
Bursting Strength (P.S.I.)	>200*	---	---	---	---	Min. 40
Conclusion	PASS	---	---	---	---	-

Remark : *= The stretch of the fabric exceeds the dimensional limitation of the tester



DETAILED RESULTS:

Seam Strength

Test Method: With reference to ASTM D 1683/D1683M-17(R2018); Instron CRE

Specimen No.	30-Shell with lining	31-Shell with lining	Client's requirement (lbf)
Items	Result (lbf)	Result (lbf)	
Side seam-Front	225.4(S.T.B.)	81.5 (S.T.B.)	Min. 25
Side seam-Back	164.2(S.T.B.)	82.0 (S.T.B.)	Min. 25
Bottom seam-Front length	185.7(S.T.B.)	84.7 (S.T.B.)	Min. 25
Bottom seam-Back length	183.6(F.R.)	116.4 (S.T.B.)	Min. 25
Bottom seam-Width	187.7(F.T.S.)	179.2 (F.T.S.)	Min. 25
Conclusion	PASS	PASS	-

Remarks: S.T.B. = Sewing Thread Breaks.
 F.R.= Fabric Rupture
 F.T.S. = Fabric Tear at Seam



DETAILED RESULTS:

Abrasion Resistance

Test Method: ASTM D4966-12^{E1}, Option 1; Martindale Wear & Abrasion Tester; 12kPa Pressure

Specimen No.	30-Grey shell fabric	31-Black shell fabric	37	Client's requirement (rubs)
Items	Result (rubs)	Result (rubs)	Result (rubs)	
End point	>10000	>10000	>10000	10000
Conclusion	PASS	PASS	PASS	-

Remarks: Grey Scale Rating is based on the 5-step scale of 1 to 5, where 1 is bad and 5 is good.

Pilling Resistance

Test Method: ASTM D3512/D3512M-16; After 30 min. tumbling in Random tumble Pilling Tester

Specimen No.	32*	33	37	Client's requirement
Items	Result	Result	Result	
As received Rating	4.5	4.5	4.5	Min. 3.5
Conclusion	PASS	PASS	PASS	-

Remarks: Pilling Rating

- 5 No pilling
- 4 Slight pilling
- 3 Moderate pilling
- 2 Severe pilling
- 1 Very severe pilling

Remark: *: This sample is not from the product, but a newly received sample



DETAILED RESULTS:

Zipper Strength

Test Method: ASTM D2061-07(R2013); type: LM

Specimen No.	38	
Items	Result	Client's requirement
Chain Crosswise Strength Test ϕ (lbf)	117.0(Elements pull out)	Min. 75
Element Pull-Off Test (lbf)	14.2(Elements pull off)	Min. 10
Element Slippage Test (lbf)	21.5(Elements pull off)	Min. 9
Resistance to Pull-Off Slider Pull (lbf)	94.3(Puller pull out)	Min.35
Resistance to Twist of Pull and Slider Test Clockwise (lb. inch)	>7.8	Min.4
Counter-Clockwise (lb. inch)	>7.8	
Conclusion	PASS	

Zipper Operability

Test Method: ASTM D2062-03(R2014)

Specimen No.	38	
Items	Result	Client's requirement
Chain opening (lbf)	0.9	Max. 2
Chain closing (lbf)	1.0	Max. 2
Conclusion	PASS	

Remark: It is noted that a specific sampling plan is laid down per ASTM D2061-07(R2013) & ASTM D2062-03(R2014). The above results for Zipper Strength & Zipper Operability are drawn on the 10 of tested specimens, based on the request from the applicant.



DETAILED RESULTS:

Zipper Strength

Test Method: ASTM D2061-07(R2013); type: LM

Specimen No.	39	
Items	Result	Client's requirement
Chain Crosswise Strength Test* (lbf)	210.5(Fabric rupture)	Min. 175
Resistance to Pull-Off Slider Pull (lbf)	79.0(Puller pull out)	Min.35
Resistance to Twist of Pull and Slider Test Clockwise (lb. inch) Counter-Clockwise (lb. inch)	>7.8 >7.8	Min.4
Conclusion	PASS	

Zipper Operability

Test Method: ASTM D2062-03(R2014)

Specimen No.	39	
Items	Result	Client's requirement
Chain opening (lbf)	0.9	Max. 2
Chain closing (lbf)	0.9	Max. 2
Conclusion	PASS	

Remark: It is noted that a specific sampling plan is laid down per ASTM D2061-07(R2013) & ASTM D2062-03(R2014). The above results for Zipper Strength & Zipper Operability are drawn on the 8 of tested specimens, based on the request from the applicant.



DETAILED RESULTS:

Zipper Strength

Test Method: ASTM D2061-07(R2013); type: LM

Specimen No.	40	
Items	Result	Client's requirement
Chain Crosswise Strength Test* (lbf)	209.0(Fabric rupture)	Min. 175
Resistance to Pull-Off Slider Pull (lbf)	88.2(Puller pull out)	Min.35
Resistance to Twist of Pull and Slider Test Clockwise (lb. inch) Counter-Clockwise (lb. inch)	5.0 5.8	Min.4
Conclusion	PASS	

Zipper Operability

Test Method: ASTM D2062-03(R2014)

Specimen No.	40	
Items	Result	Client's requirement
Chain opening (lbf)	0.5	Max. 2
Chain closing (lbf)	0.6	Max. 2
Conclusion	PASS	

Remark: It is noted that a specific sampling plan is laid down per ASTM D2061-07(R2013) & ASTM D2062-03(R2014). The above results for Zipper Strength & Zipper Operability are drawn on the 9 of tested specimens, based on the request from the applicant.



DETAILED RESULTS:

Shear Strength Of Hook & Loop^φ

Test Method: ASTM D5169-98(R2015);

Specimen No.	41		Client's requirement
Items	Result		
	Original	After 5000 cycles	
Mean Shear Strength (Kpa)	117	108	Min. 65
Conclusion	PASS	PASS	-

Peeling Strength of Hooks^φ

Test Method: ASTM D5170-98(R2015);

Specimen No.	41		Client's requirement
Items	Result		
	Original	After 5000 cycles	
Mean Peel Strength (N/mm)	0.25	0.21	Min. 0.08
Conclusion	PASS	PASS	-



DETAILED RESULTS:

Water Repellency-Spray Test

Test Method: AATCC 22-2017; Spray Test – Tested under controlled condition, water temperature: 27±1°C

Specimen No.	32*			Client's requirement
Items	Result			
	Specimen 1#	Specimen 2#	Specimen 3#	
As received Rating	100	100	100	Min. 90
Conclusion	PASS			-

Specimen No.	33			Client's requirement
Items	Result			
	Specimen 1#	Specimen 2#	Specimen 3#	
As received Rating	100	100	100	Min. 90
Conclusion	PASS			-

- Remarks: Spray Rating
- 100 No sticking or wetting of specimen face
 - 90 Slight random sticking or wetting of specimen face
 - 80 Wetting of specimen face at spray points
 - 70 Partial wetting of the specimen face beyond the spray points
 - 50 Complete wetting of the entire specimen face beyond the spray points
 - 0 Complete wetting of the entire face of the specimen

Remark: *: This sample is not from the product, but a newly received sample



DETAILED RESULTS:

Water Resistance –Rain Test

Test Method: AATCC 35-2013; Rain Test-2ft head Pressure; 2-min impact

Specimen No.	32*				Client's requirement
Items	Result				
	Specimen 1#	Specimen 2#	Specimen 3#	Average	
As received Weight of blotter gained (g)	0.0	0.0	0.0	0.0	Max 1.0g
Conclusion	PASS				-

Specimen No.	33				Client's requirement
Items	Result				
	Specimen 1#	Specimen 2#	Specimen 3#	Average	
As received Weight of blotter gained (g)	0.0	0.0	0.0	0.0	Max 1.0g
Conclusion	PASS				-

Remark: *: This sample is not from the product, but a newly received sample



DETAILED RESULTS:

Fiber Content

Test Method: AATCC 20-2018

Specimen No.	30-Grey shell fabric	30-Grey main lining	Client's requirement (%)
Items	Result (%)	Result (%)	
Polyester	100	100	N/A
Conclusion	Information only	Information only	-

Specimen No.	31-Black shell fabric	31-Blue main lining	Client's requirement (%)
Items	Result (%)	Result (%)	
Polyester	100	100	N/A
Conclusion	Information only	Information only	-



DETAILED RESULTS:

Client's Requirement for Static Load Test

Test Item	Test Method	Requirement	Conclusion
Static Load test	Place the test load on the bag with 50lb for 2 hours.	No damage	PASS



SPECIMEN DESCRIPTION:

Specimen No.	Specimen Description	Location
1	Black plastic	Buckle shell(black style)
2	Black plastic	Buckle pin(black style)
3	Black textile	Zipper cloth of front pocket(black style)
4	Black plastic	Zipper teeth of front pocket(black style)
5	Black textile	Small zipper puller(black style)
6	Black metal	Small zipper puller(black style)
7	Black metal	Small zipper slider(black style)
8	Black metal	Big zipper puller(black style)
9	Black metal	Big zipper slider(black style)
10	Black textile	Small zipper cloth(black style)
11	Black plastic	Small zipper teeth(black style)
12	Black textile	Main body(black style)
13	Grey textile	Main body(grey style)
14	Blue textile	Lining(black style)
15	Grey textile	Lining(grey style)
16	Black textile	Edge of lining(black style)
17	Black mesh textile	Lining of straps (black style)
18	Grey sponge	Straps filler(black style)
19	Grey foam	Straps filler(black style)
20	Black plastic	Adjustable buckle of straps (black style)
21	Black textile	Handle(black style)
22	White non-woven textile	Main body filler(black style)
23	Black textile	Elastic of lining(all styles)
24	Grey soft plastic	Elastic of lining(all styles)
25	Black textile	Velcro of elastic(black style)
26	Black plastic	Velcro of elastic(black style)



SPECIMEN DESCRIPTION:

Specimen No.	Specimen Description	Location
27	Black mesh textile	Lining of front pocket(black style)
28	Black printed white textile	Label(all styles)
29	White foam	Middle filler of main body(grey style)
30	Grey bag	Finished product
31	Black bag	Finished product
32	Grey fabric for shell of grey bag	Raw material
33	Black fabric for shell of black bag	Raw material
34	Grey fabric for lining of grey bag	Raw material
35	Blue fabric for lining of black bag	Raw material
36	Black mesh fabric for inner of black bag & grey bag	Raw material
37	Black mesh fabric for back mesh of black bag & grey bag	Raw material
38	Plastic zipper	Raw material (small zipper puller style)
39	Nylon zipper	Raw material (small zipper puller style)
40	Nylon zipper	Raw material (long zipper puller style)
41	Black Velcro tape	Raw material
42	Dark grey fabric	Raw material



SAMPLE PHOTO:



SAMPLE PHOTO:



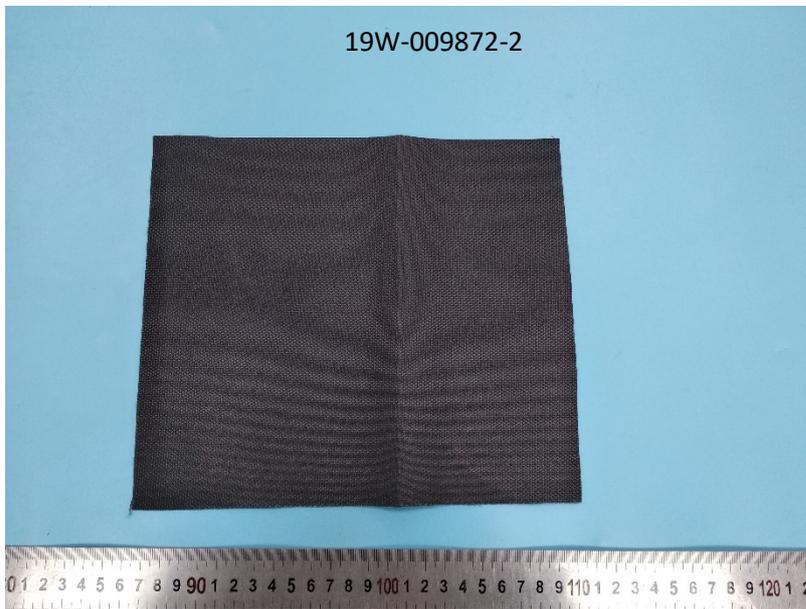
SAMPLE PHOTO:



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