



	<b>Report No:</b>	02249-23		
	<b>Receiving Date:</b>	Feb 02, 2023		
	<b>Issue Date:</b>	Feb 06, 2023		
	<b>Lab Location:</b>	Lahore (Pakistan)		
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<b>Applicant:</b>	Kamal Mills Private Limited.	<b>Buyer Name:</b>	Kik Textilien und Non-Food GmbH
<b>Contact:</b>	Muhammad Asad	<b>Supplier Name:</b>	Kamal Mills Private Limited.
<b>Address:</b>	3 KM, Jhumra Road, Khurrianwala, Faisalabad-Pakistan.	<b>Agent:</b>	Matrix Sourcing
<b>Tel:</b>	0300-8793742	<b>Country of Origin:</b>	Pakistan
<b>E-mail:</b>	Muhammad.asad@kamal.com.pk	<b>Country of Destination:</b>	Germany

Sample Information		
	<b>Product Description:</b>	Children boy ergee socks 4 pair
	<b>Material Composition:</b>	72% Cotton, 26% Polyamide, 2% Elastane
	<b>Fabric:</b>	Jersey
	<b>Fabric Weight:</b>	/
	<b>Merchandise Category (WGR):</b>	837
	<b>P.O Reference No:</b>	P203649
	<b>P.O:</b>	4500325875,4500325876
	<b>Article No:</b>	1165292903,1165292904
	<b>Article Description:</b>	Children boy ergee socks 4 pair
	<b>Style Color:</b>	Orange, Green
	<b>Supplier No:</b>	301313
	<b>Season:</b>	123
	<b>Buying Dept (EKB) :</b>	/
	<b>Dye stuff:</b>	/
	<b>Previous Report# (for retest):</b>	/




<b>Submitted Care instructions:</b>	/
<b>Test Package:</b>	"PC A: (Socks size > 24)"

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Sr. No	Test properties	PASS	FAIL	Remarks
<b>Physical Tests</b>				
1	Appearance after washing			
2	Colour fastness to water			
3	Colour fastness to perspiration			
4	Colour fastness to rubbing			
5	Fiber Composition			
<b>Chemical Tests</b>				
6	Alkylphenole/ Alkylphenolethoxylate (AP/APEO)			
7	Azo-Dyes (including Aniline)			
8	Aromatic Amine Salts			

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Sample	Material No	Component Description	Material Type
A	A1	Body Thread (Total Eclipse)	Substrate
	A2	Body Thread (Koi)	Substrate
	A3	Body Thread (Black)	Substrate
	A4	Body Thread (White)	Substrate
B	B1	Body Thread (Grey Melange)	Substrate
	B2	Body Thread (Koi)	Substrate
	B3	Body Thread (Total Eclipse)	Substrate
C	C1	Body Thread (Grey Melange)	Substrate
	C2	Body Thread (Koi)	Substrate
	C3	Body Thread (Total Eclipse)	Substrate
D	D1	Body Thread (Total Eclipse)	Substrate
	D2	Body Thread (Koi)	Substrate
	D3	Body Thread (Black)	Substrate
E	E1	Body Thread (Asphalt)	Substrate
	E2	Body Thread (Thyme)	Substrate
	E3	Body Thread (Sea Spray)	Substrate
	E4	Body Thread (Acid Lime)	Substrate
	E5	Body Thread (Black)	Substrate
F	F1	Body Thread (Asphalt)	Substrate
	F2	Body Thread (Thyme)	Substrate
	F3	Body Thread (Sea Spray)	Substrate
	F4	Body Thread (Acid Lime)	Substrate
	F5	Body Thread (Black)	Substrate
G	G1	Body Thread (Asphalt)	Substrate
	G2	Body Thread (Thyme)	Substrate
	G3	Body Thread (Acid Lime)	Substrate
	G4	Body Thread (Sea Spray)	Substrate
	G5	Body Thread (Black)	Substrate

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### **Dimensional stability to washing**

DIN EN ISO 6330:2021/ 5077:2008

Machine wash at (30°C) in household washing machine with Persil detergent, Normal cycle, 2.0 kg wash load, Flat dry.

#### **Sample A:**

Points Of Measurement	Before Wash (Cm)	After Wash (Cm)	Dimensional Change (%)	±5
Product Length	18.2	17.8	-0.55	
Product Width	18.8	15.5	0.22	

#### **Sample B:**

Points Of Measurement	Before Wash (Cm)	After Wash (Cm)	Dimensional Change (%)	±5
Product Length	18.2	17.8	-0.55	
Product Width	18.8	15.5	0.22	




#### **Sample C:**

Points Of Measurement	Before Wash (Cm)	After Wash (Cm)	Dimensional Change (%)	±5
Product Length	18.2	17.8	-0.55	
Product Width	18.8	15.5	0.22	

#### **Sample D:**

Points Of Measurement	Before Wash (Cm)	After Wash (Cm)	Dimensional Change (%)	±5
Product Length	18.2	17.8	-0.55	
Product Width	18.8	15.5	0.22	

(+) Denotes Extension (-) Shrinkage

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### Appearance after washing:

DIN EN ISO 6330:2021/ 5077:2008

Washing & drying procedure: Same as Dimensional stability to washing

### Sample A

Assesment	Result	
Colour Change	4-5	Class 3-4
Cross Staining	5	Class 4-5
Appearance	No seam open No stitch broken	Satisfactory
Pilling / Fuzzing	Slight pilling class 4-5	Class 4-5
Other Changes Observed	No other changes observed	Not Accepted




### Sample B

Assesment	Result	
Colour Change	4-5	Class 3-4
Cross Staining	5	Class 4-5
Appearance	No seam open No stitch broken	Satisfactory
Pilling / Fuzzing	Slight pilling class 4-5	Class 4-5
Other Changes Observed	No other changes observed	Not Accepted

### Sample C

Assesment	Result	
Colour Change	4-5	Class 3-4
Cross Staining	5	Class 4-5
Appearance	No seam open No stitch broken	Satisfactory
Pilling / Fuzzing	Slight pilling class 4-5	Class 4-5
Other Changes Observed	No other changes observed	Not Accepted

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### Colour fastness to perspiration:

DIN EN ISO 105-E04

Sample	A	B	C	D	E	F	G	H	
Color Change	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	Change 3-4
Self-staining	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	Contrast staining 4-5
Staining On:	-	-	-	-	-	-	-	-	Staining 3-4
- Acetate	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	
- Cotton	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	
- Polyamide	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	
- Polyester	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	
- Acrylic	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	
- Wool	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	

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### **Colour fastness to perspiration:**

DIN EN ISO 105-E04




Sample	Sample A	Sample A	Sample B	Sample B	
	Acid	Alkane	Acid	Alkane	
Color Change	4-5	4-5	4-5	4-5	Change 3-4
Self-staining	4-5	4-5	4-5	4-5	/
Staining On:	-	-	-	-	Staining 3-4
- Acetate	4-5	4-5	4-5	4-5	
- Cotton	4-5	4-5	4-5	4-5	
- Polyamide	4-5	4-5	4-5	4-5	
- Polyester	4-5	4-5	4-5	4-5	
- Acrylic	4-5	4-5	4-5	4-5	
- Wool	4-5	4-5	4-5	4-5	

Sample	Sample C	Sample C	Sample D	Sample D	
	Acid	Alkane	Acid	Alkane	
Color Change	4-5	4-5	4-5	4-5	Change 3-4
Self-staining	4-5	4-5	4-5	4-5	/
Staining On:	-	-	-	-	Staining 3-4
- Acetate	4-5	4-5	4-5	4-5	
- Cotton	4-5	4-5	4-5	4-5	
- Polyamide	4-5	4-5	4-5	4-5	
- Polyester	4-5	4-5	4-5	4-5	
- Acrylic	4-5	4-5	4-5	4-5	
- Wool	4-5	4-5	4-5	4-5	

Sample	Sample E	Sample E	Sample F	Sample F	
	Acid	Alkane	Acid	Alkane	
Color Change	4-5	4-5	4-5	4-5	Change 3-4
Self-staining	4-5	4-5	4-5	4-5	/
Staining On:	-	-	-	-	Staining 3-4
- Acetate	4-5	4-5	4-5	4-5	
- Cotton	4-5	4-5	4-5	4-5	
- Polyamide	4-5	4-5	4-5	4-5	
- Polyester	4-5	4-5	4-5	4-5	
- Acrylic	4-5	4-5	4-5	4-5	
- Wool	4-5	4-5	4-5	4-5	




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Sample	Sample G	Sample G	
	Acid	Alkane	
Color Change	4-5	4-5	Change 3-4
Self-staining	4-5	4-5	/
Staining On:	-	-	Staining 3-4
- Acetate	4-5	4-5	
- Cotton	4-5	4-5	
- Polyamide	4-5	4-5	
- Polyester	4-5	4-5	
- Acrylic	4-5	4-5	
- Wool	4-5	4-5	

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### **Alkylphenole/ Alkylphenoethoxylate (AP/APEO):**

EN ISO 21084:2019/ AP: Analyzed by GC-MS / EN ISO 18254-1:2016 / APEO:

Analyzed by LC-MS


Sample	Sample A	Sample A	Sample B	Sample B	
	Length	Width	Length	Width	
Dry rubbing	4-5	4-5	4-5	4-5	Dry 4
Wet rubbing	3	3	3	3	Wet 2-3

Sample	Sample C	Sample C	Sample D	Sample D	
	Length	Width	Length	Width	
Dry rubbing	4-5	4-5	4-5	4-5	Dry 4
Wet rubbing	3	3	3	3	Wet 2-3

Sample	Sample E	Sample E	Sample F	Sample F	
	Length	Width	Length	Width	
Dry rubbing	4-5	4-5	4-5	4-5	Dry 4
Wet rubbing	3	3	3	3	Wet 2-3

Sample	Sample G	Sample G	Sample H	Sample H	
	Length	Width	Length	Width	
Dry rubbing	4-5	4-5	4-5	4-5	Dry 4
Wet rubbing	3	3	3	3	Wet 2-3

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### **Fiber Composition:**

DIN EN ISO 1833-7:2017,11:2017




Sample A	Labeled Fiber Content	Actual (Tested) Fiber Content	Suggested Fiber Content	±3
Cotton (%)	72	69.2	69	
Polyamide (%)	72	69.2	69	
Polyester (%)	72	69.2	69	
Elastane (%)	72	69.2	28	

Sample B	Labeled Fiber Content	Actual (Tested) Fiber Content	Suggested Fiber Content	±3
Cotton (%)	72	69.2	69	
Polyamide (%)	72	69.2	69	
Polyester (%)	72	69.2	69	
Elastane (%)	72	69.2	28	

Sample C	Labeled Fiber Content	Actual (Tested) Fiber Content	Suggested Fiber Content	±3
Cotton (%)	72	69.2	69	
Polyamide (%)	72	69.2	69	
Polyester (%)	72	69.2	69	
Elastane (%)	72	69.2	28	

Sample D	Labeled Fiber Content	Actual (Tested) Fiber Content	Suggested Fiber Content	±3
Cotton (%)	72	69.2	69	
Polyamide (%)	72	69.2	69	
Polyester (%)	72	69.2	69	
Elastane (%)	72	69.2	28	

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### **Alkylphenole/ Alkylphenolethoxylate (AP/APEO):**



EN ISO 21084:2019/ AP: Analyzed by GC-MS / EN ISO 18254-1:2016 / APEO:

Analyzed by LC-MS

Title	CAS No.	Sample A	Sample B	Sample C	Sample D	
Nonylphenol (NP), mixed isomers	104-40-5 11066-49-2 25154-52-3 84852-15-3	ND	ND	ND	ND	Sum of NP, OP: 5 mg/kg
Octylphenol (OP), mixed isomers	140-66-9 1806-26-4 27193-28-8	ND	ND	ND	ND	
Nonylphenol Ethoxylates (NPEO)	9016-45-9 26027-38-3 37205-87-1 68412-54-4 127087-87-0	ND	ND	ND	ND	Sum of NPEO, OPEO: 50 mg/kg
Octylphenol Ethoxylates (OPEO)	9002-93-1 9036-19-5 68987-90-6	ND	ND	ND	ND	
Sum NP/NPEO	-	ND	ND	ND	ND	/

Title	CAS No.	Sample E	Sample F	Sample G	Sample H	
Nonylphenol (NP), mixed isomers	104-40-5 11066-49-2 25154-52-3 84852-15-3	ND	ND	ND	ND	Sum of NP, OP: 5 mg/kg
Octylphenol (OP), mixed isomers	140-66-9 1806-26-4 27193-28-8	ND	ND	ND	ND	
Nonylphenol Ethoxylates (NPEO)	9016-45-9 26027-38-3 37205-87-1 68412-54-4 127087-87-0	ND	ND	ND	ND	Sum of NPEO, OPEO: 50 mg/kg
Octylphenol Ethoxylates (OPEO)	9002-93-1 9036-19-5 68987-90-6	ND	ND	ND	ND	
Sum NP/NPEO	-	ND	ND	ND	ND	/




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Title	CAS No.	Sample I	Sample J	Sample K	
Nonylphenol (NP), mixed isomers	104-40-5 11066-49-2 25154-52-3 84852-15-3	ND	ND	ND	Sum of NP, OP: 5 mg/kg
Octylphenol (OP), mixed isomers	140-66-9 1806-26-4 27193-28-8	ND	ND	ND	
Nonylphenol Ethoxylates (NPEO)	9016-45-9 26027-38-3 37205-87-1 68412-54-4 127087-87-0	ND	ND	ND	Sum of NPEO, OPEO: 50 mg/kg
Octylphenol Ethoxylates (OPEO)	9002-93-1 9036-19-5 68987-90-6	ND	ND	ND	
Sum NP/NPEO	-	ND	ND	ND	/

Note
Unit: mg/kg: (milligram per kilogram)
MDL: 5mg/kg for (NP/OP): 30mg/kg (NPEO/OPEO)
ND: Not detected

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### **Fabric weight:**




ISO 3801:1977

Sample	Sample A	Sample B	Sample C	Sample D	±5%
g/m <sup>2</sup>	203.0	203.0	203.0	203.0	190 g/m <sup>2</sup>
Oz	5.99	5.99	5.99	5.99	5.60 Oz

Sample	Sample E	Sample F	Sample G	Sample H	±5%
g/m <sup>2</sup>	203.0	203.0	203.0	203.0	190 g/m <sup>2</sup>
Oz	5.99	5.99	5.99/	5.99	5.60 Oz

Sample	Sample I	Sample J	Sample K	±5%
g/m <sup>2</sup>	203.0	203.0	203.0	190 g/m <sup>2</sup>
Oz	5.99	5.99	5.99	5.60 Oz

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### **Seam spirality after laundering:**

ISO 16322-3:2021

Sample	Sample A	Sample B	Sample C	Sample D	
Spirality (%)	0.3	0.3	0.3	0.3	3%
Spirality (cm)	5.99	5.99	5.99	5.99	3cm

Sample	Sample E	Sample F	Sample G	Sample H	
Spirality (%)	0.3	0.3	0.3	203.0	3%
Spirality (cm)	5.99	5.99	5.99	5.99	3cm

Sample	Sample I	Sample J	Sample K	
Spirality (%)	203.0	203.0	203.0	3%
Spirality (cm)	5.99	5.99	5.99	3cm

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