TESTEX®

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Zurich, 17.08.2016 / me

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Test material: 4 samples of screen print paste: NPP-688 C/W/HC/HW/MC/MW/HMC/HMW (clear and white), MP-888C/W (clear and white), for testing.

SUBJECT OF ANALYSIS

According to your order dated 20.07.2016 analysis should be carried out on the samples received on 03.08.2016. This order and the tests carried out are related to the application for renewal of your ECO PASSPORT TPXA 105833.

RESULTS OF ANALYSIS

The results of the analysis we have carried out are summarized in the following tables.

SUMMARY

The test methods and requirements according to ECO PASSPORT were used as basis of evaluation.

The test results show that the water-based screen printing pastes do not contain substances regarded as harmful according to the standards of ECO PASSPORT and are therefore suitable for use without restriction in the production of human ecologically-optimized textiles provided the manufacturer's instructions are observed during the application.

Please find your ECO PASSPORT TPXA 105833 together with the RSL-Report enclosed with this test report. It is valid until 31.05.2017 and can then be renewed.

Swiss Textile Testing Institute
TESTEX AG

Elke Lorentzen
Management

Mary Rose Egloff
Customer Service

Enclosures mentioned

cc: Testex Taipei

RE 121349.1

TABLE OF RESULTS

			#1 Print paste waster-based NPP -688 clear	#2 Print paste water-based NPP -688 white	#3 Print paste water-based MP-888 clear	#4 Print paste water-based MP-888 white
Formaldehyde JIS L-1041 [Eco Passport]		ECO PASSPORT threshold value				
No. of tests			1	1	1	1
• Free formaldehyde	[mg/kg]	<200	<16	<16	<16	25
Heavy Metals Total Content [Eco Passport]		ECO PASSPORT threshold value				
No. of tests			1	1	1	1
• Antimony	[mg/kg]	<50	<0.01	<0.01	<0.01	<0.01
• Arsenic	[mg/kg]	<50	1.2	1.2	0.38	0.62
• Lead	[mg/kg]	<90	0.22	0.14	2.6	0.42
• Cadmium	[mg/kg]	<20	<0.01	<0.01	<0.01	0.68
• Chromium total	[mg/kg]	<100	<0.01	<0.01	0.29	<0.01
• Cobalt	[mg/kg]	<500	<0.01	<0.01	0.07	0.02
• Copper	[mg/kg]	<250	2	0.77	1.6	1.2
• Nickel	[mg/kg]	<200	0.69	0.78	0.37	0.24
• Mercury	[mg/kg]	<4	<0.01	<0.01	<0.01	<0.01
• Selenium	[mg/kg]		3.3	1.4	0.9	0.68
• Zinc	[mg/kg]		2.7	1.8	70	310

TABLE OF RESULTS

Chlorinated Phenols and OPP OEKO-TEX® Method 5 [Eco Passport]		ECO PASSPORT threshold value	#1 Print paste waster-based NPP -688 clear	#2 Print paste water-based NPP -688 white	#3 Print paste water-based MP-888 clear	#4 Print paste water-based MP-888 white
No. of tests			1	1	1	1
• Orthophenylphenol (OPP)	[mg/kg]	<500	<0.05	<0.05	<0.05	<0.05
• Pentachlorophenol (PCP)	[mg/kg]	<0.50	<0.01	<0.01	<0.01	<0.01
• 2,3,5,6-TeCP	[mg/kg]		<0.01	<0.01	<0.01	<0.01
• 2,3,4,6-TeCP	[mg/kg]		<0.01	<0.01	<0.01	<0.01
• 2,3,4,5-TeCP	[mg/kg]		<0.01	<0.01	<0.01	<0.01
• Tetrachlorophenols (TeCP, Sum)	[mg/kg]	<0.50	<0.01	<0.01	<0.01	<0.01
• 2,3,4-TrCP	[mg/kg]		<0.05	<0.05	<0.05	<0.05
• 2,3,5-TrCP	[mg/kg]		<0.05	<0.05	<0.05	<0.05
• 2,3,6-TrCP	[mg/kg]		<0.05	<0.05	<0.05	<0.05
• 2,4,5-TrCP	[mg/kg]		<0.05	<0.05	<0.05	<0.05
• 2,4,6-TrCP	[mg/kg]		<0.05	<0.05	<0.05	<0.05
• 3,4,5-TrCP	[mg/kg]		<0.05	<0.05	<0.05	<0.05
• Trichlorophenols (TrCP, Sum)	[mg/kg]	<2.0	<0.05	<0.05	<0.05	<0.05
• 2,4/2,5-Dichlorophenol	[mg/kg]		<0.05	<0.05	<0.05	<0.05
• 2,6-Dichlorophenol	[mg/kg]		<0.05	<0.05	<0.05	<0.05
• 2,3-Dichlorophenol	[mg/kg]		<0.05	<0.05	<0.05	<0.05
• 3,4-Dichlorophenol	[mg/kg]		<0.05	<0.05	<0.05	<0.05
• 3,5-Dichlorophenol	[mg/kg]		<0.05	<0.05	<0.05	<0.05
• Dichlorophenols (DCP, Sum)	[mg/kg]	<5.0	<0.05	<0.05	<0.05	<0.05
• 2-Chlorophenol	[mg/kg]		<0.05	<0.05	<0.05	<0.05
• 3-Chlorophenol	[mg/kg]		<0.05	<0.05	<0.05	<0.05
• 4-Chlorophenol	[mg/kg]		<0.05	<0.05	<0.05	<0.05
• Monochlorophenols (MCP, Sum)	[mg/kg]	<5.0	<0.05	<0.05	<0.05	<0.05

TABLE OF RESULTS

Plasticisers OEKO-TEX® Method 6 [Eco Passport]		ECO PASSPORT threshold value	#1 Print paste waster-based NPP -688 clear	#2 Print paste water-based NPP -688 white	#3 Print paste water-based MP-888 clear	#4 Print paste water-based MP-888 white
No. of tests			1	1	1	1
• TCEP	[%]	<0.10	<0.01	<0.01	<0.01	<0.01
• DIBP	[%]		<0.01	<0.01	<0.01	<0.01
• DBP	[%]		<0.01	<0.01	<0.01	<0.01
• DMEP	[%]		<0.01	<0.01	<0.01	<0.01
• DIPP	[%]		<0.01	<0.01	<0.01	<0.01
• NPIPP	[%]		<0.01	<0.01	<0.01	<0.01
• DPP	[%]		<0.01	<0.01	<0.01	<0.01
• DIHxP	[%]		<0.01	<0.01	<0.01	<0.01
• DHxP	[%]		<0.01	<0.01	<0.01	<0.01
• BBP	[%]		<0.01	<0.01	<0.01	<0.01
• DIHP*	[%]		<0.01	<0.01	<0.01	<0.01
• DCHP	[%]		<0.01	<0.01	<0.01	<0.01
• DEHP	[%]		<0.01	<0.01	<0.01	<0.01
• DNOP	[%]		<0.01	<0.01	<0.01	<0.01
• DINP*	[%]		<0.01	<0.01	<0.01	<0.01
• DIDP	[%]		<0.01	<0.01	<0.01	<0.01
• DUP*	[%]		<0.01	<0.01	<0.01	<0.01
• DDDP	[%]		<0.01	<0.01	<0.01	<0.01
• Sum w/ DINP	[%]	<0.10	<0.01	<0.01	<0.01	<0.01
• Sum w/o DINP	[%]		<0.01	<0.01	<0.01	<0.01
• * Components of DHNUP						

TABLE OF RESULTS

			#1 Print paste waster-based NPP -688 clear	#2 Print paste water-based NPP -688 white	#3 Print paste water-based MP-888 clear	#4 Print paste water-based MP-888 white
Organic Tin Compounds OEKO-TEX® Method 7 [Eco Passport]		ECO PASSPORT threshold value				
No. of tests			1	1	1	1
• Methyltin (MeT)	[mg/kg]	<10	<0.05	<0.05	<0.05	<0.05
• Butyltin (MBT)	[mg/kg]	<10	<0.05	<0.05	<0.05	<0.05
• Di-n-propyltin (DPT)	[mg/kg]	<10	<0.05	<0.05	<0.05	<0.05
• Dibutyltin (DBT)	[mg/kg]	<10	<0.05	<0.05	<0.05	<0.05
• Tributyltin (TBT)	[mg/kg]	<5.0	<0.05	<0.05	<0.05	<0.05
• n-Octyltin (MOT)	[mg/kg]	<10	<0.05	<0.05	<0.05	<0.05
• Tetrabutyltin (TeBT)	[mg/kg]	<10	<0.05	<0.05	<0.05	<0.05
• Diphenyltin (DPhT)	[mg/kg]	<10	<0.05	<0.05	<0.05	<0.05
• Di-n-octyltin (DOT)	[mg/kg]	<10	<0.05	<0.05	<0.05	<0.05
• Triphenyltin (TPht)	[mg/kg]	<5.0	<0.05	<0.05	<0.05	<0.05
• Tricyclohexyltin (TCT)	[mg/kg]	<10	<0.05	<0.05	<0.05	<0.05
• Dimethyltin (DMT)	[mg/kg]	<10	<0.05	<0.05	<0.05	<0.05
• Trioctyltin (TOT)	[mg/kg]	<10	<0.05	<0.05	<0.05	<0.05
• Tripropyltin (TPT)	[mg/kg]	<10	<0.05	<0.05	<0.05	<0.05
• Trimethyltin (TMT)	[mg/kg]	<10	<0.05	<0.05	<0.05	<0.05

TABLE OF RESULTS

Chlorinated Benzenes & Toluenes OEKO-TEX® Method 12 [Eco Passport]		ECO PASSPORT threshold value	#1 Print paste waster-based NPP -688 clear	#2 Print paste water-based NPP -688 white	#3 Print paste water-based MP-888 clear	#4 Print paste water-based MP-888 white
No. of tests			1	1	1	1
• Chlorobenzene	[mg/kg]		<0.05	<0.05	<0.05	<0.05
• 2-Chlorotoluene	[mg/kg]		<0.01	<0.01	<0.01	<0.01
• 3-Chlorotoluene	[mg/kg]		<0.01	<0.01	<0.01	<0.01
• 4-Chlorotoluene	[mg/kg]		<0.01	<0.01	<0.01	<0.01
• 1,3-Dichlorobenzene	[mg/kg]		<0.01	<0.01	<0.01	<0.01
• Benzylchloride	[mg/kg]		<0.01	<0.01	<0.01	<0.01
• 1,4-Dichlorobenzene	[mg/kg]		<0.01	<0.01	<0.01	<0.01
• 1,2-Dichlorobenzene	[mg/kg]		<0.01	<0.01	<0.01	<0.01
• 2,4-Dichlorotoluene	[mg/kg]		<0.01	<0.01	<0.01	<0.01
• 2,5-/ 2,6-Dichlorotoluene	[mg/kg]		<0.01	<0.01	<0.01	<0.01
• 1,3,5-Trichlorobenzene	[mg/kg]		<0.01	<0.01	<0.01	<0.01
• α,α-Dichlorotoluene	[mg/kg]		<0.01	<0.01	<0.01	<0.01
• 2,3-/ 3,4-Dichlorotoluene	[mg/kg]		<0.01	<0.01	<0.01	<0.01
• 1,2,4-Trichlorobenzene	[mg/kg]		<0.01	<0.01	<0.01	<0.01
• 1,2,3-Trichlorobenzene	[mg/kg]		<0.01	<0.01	<0.01	<0.01
• α,α,α-Trichlorotoluene	[mg/kg]		<0.01	<0.01	<0.01	<0.01
• 2,4,5-Trichlorotoluene	[mg/kg]		<0.01	<0.01	<0.01	<0.01
• 2,3,6-Trichlorotoluene	[mg/kg]		<0.01	<0.01	<0.01	<0.01
• 1,2,3,5-Tetrachlorobenzene	[mg/kg]		<0.01	<0.01	<0.01	<0.01
• 1,2,4,5-Tetrachlorobenzene	[mg/kg]		<0.01	<0.01	<0.01	<0.01
• α,2,6-Trichlorotoluene	[mg/kg]		<0.01	<0.01	<0.01	<0.01
• α,2,4-Trichlorotoluene	[mg/kg]		<0.01	<0.01	<0.01	<0.01
• 1,2,3,4-Tetrachlorobenzene	[mg/kg]		<0.01	<0.01	<0.01	<0.01
• α,3,4-Trichlorotoluene	[mg/kg]		<0.01	<0.01	<0.01	<0.01
• α,α,α,2-Tetrachlorotoluene	[mg/kg]		<0.01	<0.01	<0.01	<0.01
• Pentachlorobenzene	[mg/kg]		<0.01	<0.01	<0.01	<0.01
• 2,3,4,5,6-Pentachlorotoluene	[mg/kg]		<0.01	<0.01	<0.01	<0.01
• Hexachlorobenzene	[mg/kg]		<0.01	<0.01	<0.01	<0.01
• Sum	[mg/kg]	<10	<0.05	<0.05	<0.05	<0.05

TABLE OF RESULTS

			#1 Print paste waster-based NPP -688 clear	#2 Print paste water-based NPP -688 white	#3 Print paste water-based MP-888 clear	#4 Print paste water-based MP-888 white
Polycyclic Aromatic Hydrocarbons (PAH) OEKO-TEX® Method 13 [Eco Passport]		ECO PASSPORT threshold value				
No. of tests			1	1	1	1
• Naphthalene	[mg/kg]		<0.01	<0.01	<0.01	<0.01
• Acenaphthylene	[mg/kg]		<0.01	<0.01	<0.01	<0.01
• Acenaphthene	[mg/kg]		<0.01	<0.01	<0.01	<0.01
• Fluorene	[mg/kg]		<0.01	<0.01	<0.01	<0.01
• Phenanthrene	[mg/kg]		<0.01	<0.01	<0.01	<0.01
• Anthracene	[mg/kg]		<0.01	<0.01	<0.01	<0.01
• Fluoranthene	[mg/kg]		<0.01	<0.01	<0.01	<0.01
• Pyrene	[mg/kg]		<0.01	<0.01	<0.01	<0.01
• 1-Methylpyrene	[mg/kg]		<0.01	<0.01	<0.01	<0.01
• Cyclopenta[cd]pyrene	[mg/kg]		<0.01	<0.01	<0.01	<0.01
• Benzo[a]anthracene	[mg/kg]	<5.0	<0.01	<0.01	<0.01	<0.01
• Chrysene	[mg/kg]	<5.0	<0.01	<0.01	<0.01	<0.01
• Benzo[b]fluoranthene	[mg/kg]	<5.0	<0.01	<0.01	<0.01	<0.01
• Benzo[k]fluoranthene	[mg/kg]	<5.0	<0.01	<0.01	<0.01	<0.01
• Benzo[j]fluoranthene	[mg/kg]	<5.0	<0.01	<0.01	<0.01	<0.01
• Benzo[e]pyrene	[mg/kg]	<5.0	<0.01	<0.01	<0.01	<0.01
• Benzo[a]pyrene	[mg/kg]	<5.0	<0.01	<0.01	<0.01	<0.01
• Dibenzo[ah]anthracene	[mg/kg]	<5.0	<0.01	<0.01	<0.01	<0.01
• Indeno[1,2,3-cd]pyrene	[mg/kg]		<0.01	<0.01	<0.01	<0.01
• Benzo[ghi]perylene	[mg/kg]		<0.01	<0.01	<0.01	<0.01
• Dibenzo[ae]pyrene	[mg/kg]		<0.01	<0.01	<0.01	<0.01
• Dibenzo[al]pyrene	[mg/kg]		<0.01	<0.01	<0.01	<0.01
• Dibenzo[ai]pyrene	[mg/kg]		<0.01	<0.01	<0.01	<0.01
• Dibenzo[ah]pyrene	[mg/kg]		<0.01	<0.01	<0.01	<0.01
• Sum	[mg/kg]	<50	<0.01	<0.01	<0.01	<0.01
Surfactants, Wetting Agent Residues OEKO-TEX® Method 15 [Eco Passport]		ECO PASSPORT threshold value				
No. of tests			1	1	1	1
• Octylphenol (OP)	[mg/kg]		<0.1	<0.1	<0.1	<0.1
• Nonylphenol (NP)	[mg/kg]		<0.1	<0.1	<0.1	<0.1
• Sum OP & NP	[mg/kg]	<50	<0.1	<0.1	<0.1	<0.1
• Octylphenolethoxylate (OPEO)	[mg/kg]		<1.0	<1.0	<1.0	<1.0
• Nonylphenolethoxylate (NPEO)	[mg/kg]		<1.0	<1.0	<1.0	<1.0
• Sum OP, NP, OPEO & NPEO	[mg/kg]	<250	<0.1	<0.1	<0.1	<0.1

Zurich, 17.08.2016