

TEST REPORT

APPLICANT : PT. INOCYCLE TECHNOLOGY GROUP TBK
JL. SOLO-PURWODADI KM 7.2 SELOREJO
RT 02 RW 09 WONOREJO GONDANGREJO
KARANGANYAR

DATE : November 15, 2019

ATTN: ULUL AZMI / DEVI SETYANINGTYAS

SUBMITTED SAMPLE SAID TO BE:

SAMPLE DESCRIPTION : POLYESTER STAPLE FIBER
COLORS : WHITE
TESTING STAGE : PRODUCTION SAMPLE
REASON FOR REVISION : CHANGE APPLICANT NAME FROM PT. HILON FELT TO PT. INOCYCLE TECHNOLOGY GROUP TBK. AS PER CLIENT REQUEST

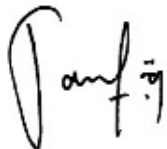
TESTS CONDUCTED:

AS REQUESTED BY THE APPLICANT, FOR DETAILS REFER TO ATTACHED PAGES.

CONCLUSION:

<u>TESTED SAMPLE</u>	<u>STANDARD</u>	<u>RESULT</u>
SUBMITTED SAMPLE	CLIENT'S SPECIFICATION IOS-MAT-0010 VERSION NO. AA-10911-14 ON FLAME RETARDANT CONTENT	SEE DETAILS ENCLOSED
	CLIENT'S SPECIFICATION IOS-MAT-0054 VERSION NO. AA-92520-11 ON FLAME RETARDANT CONTENT	SEE DETAILS ENCLOSED

PREPARED AND CHECKED BY:
FOR INTERTEK INDONESIA



TAUFIQ URAKHMAN
HARDLINE LAB MANAGER

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TESTS CONDUCTED:

1 Flame Retardants Content:

As Per Client's Specification IOS-MAT-0010 Version No.AA-10911-14, A Combination of X-Ray Fluorescence Spectroscopy, Inductively Coupled Argon Plasma Spectrometry, Gas Chromatographic - Mass Spectrometry (GC-MS) And High Performance Liquid Chromatographic (HPLC) Techniques Was Used.

	Result In ppm	Requirement In ppm
I. Antimony		
Antimony	64	200 [^] (Max.)
II. Brominated Flame Retardants		
Polybrominated Biphenyls (PBB)	< 5	--
Polybrominated Diphenyl Ethers (PBDE)	< 5	--
Sum of PBB and PBDE	< 5	100 (Max.)
III. Chlorinated Paraffins		
Short Chain Chlorinated Paraffin (C10-C13)	< 100	100 (Max.)
Medium Chain Chlorinated Paraffin (C14-C17)		
Long Chain Chlorinated Paraffin (C18-C28)		
IV. Flame Retardants (TEPA, TDCP, TCEP And TPP)		
Tris-(aziridinyl)-phosphine oxide (TEPA)	< 10	--
Tris(1,3-dichloro-2-propyl) phosphate (TDCP)	< 10	--
Tris(2-chloroethyl) phosphate (TCEP)	< 10	--
Triphenyl phosphate (TPP)	< 10	--
Sum of flame retardants	< 10	200 (Max.)

Remark: ppm = parts per million = mg/kg

- Other flame retardants were not tested

[^] This limit value does not refer to antimony as a residue in polyester due to production process (typically up to 400 mg/kg), without connection to flame retardant use.

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TESTS CONDUCTED:

2 Flame Retardants Content:

As per Client's Specification IOS-MAT-0054 Version No.AA-92520-11, a combination of X-Ray Fluorescence Spectroscopy, Inductively Coupled Argon Plasma Spectrometry, Gas Chromatographic - Mass Spectrometry (GC-MS) and High Performance Liquid Chromatographic (HPLC) Techniques was used.

	Result In ppm	Requirement In ppm
I. Antimony		
Antimony	64	200^ (Max.)
II. Brominated Flame Retardants		
Polybrominated Biphenyls (PBB)	< 5	--
Polybrominated Diphenyl Ethers (PBDE)	< 5	--
Sum of PBB and PBDE	< 5	100 (Max.)
III. Chlorinated Paraffins		
Short Chain Chlorinated Paraffin (C10-C13)	< 100	100 (Max.)
IV. Flame Retardants (TEPA, TPP, TDCP, TCPP, TCEP and TCP)		
Tris(aziridinyl) phosphine oxide (TEPA)	< 10	--
Triphenyl phosphate (TPP)	< 10	--
Sum of flame retardants	< 10	200 (Max.)
Tris(1,3-dichloro-2-propyl) phosphate (TDCP)	< 5	5 (Max.)
Tris (2-chloropropyl) phosphate (TCPP)	< 5	5 (Max.)
Tris(2-chloroethyl) phosphate (TCEP)	< 5	5 (Max.)
Tri-o-cresyl phosphate (TCP)	< 5	10 (Max.)

Remark: ppm = parts per million = mg/kg

- Other flame retardants were not tested

^ This limit value does not refer to antimony as a residue in polyester due to production process (typically up to 400 mg/kg), without connection to flame retardant use.

Date Sample Received : April 13, 2019
Testing Period : April 13, 2019 to May 02, 2019

END OF REPORT

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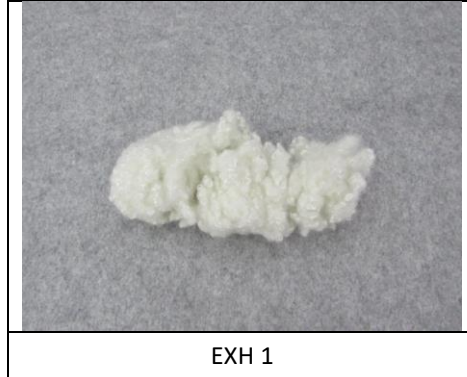


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PRODUCT PHOTO



Tested component:
White Polyester Staple Fiber

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