

Determination of alkylphenols (AP) of Textile Products EN ISO 21084:2019

Proven that Alkylphenols (AP) is not detected from OOH SHIELD technology

Detection and Determination of Alkylphenol Ethoxylates (APEO) of Textile Products EN ISO 18254:2016

Proven that Alkylphenol Ethoxylates (APEO) is not detected from OOH SHIELD technology



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TEST RESULT

Alkylphenols (AP) Content Test

Test Method I : For Textile & Leather:
EN ISO 21084

Test Method II : For Polymers and other materials:
Organic solvent extraction, analysis with reference to EN ISO 21084.

Tested Item(s) : I001 White fabric with transparent adhesive

Maximum Limit:	100 mg/kg (sum)
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Tested Item(s)	Test Method	Result			Conclusion
		Detected Analyte(s)	Conc.	Unit	
I001	I	ND	ND	mg/kg	PASS

Note:

ND = Not detected

">" = More than

Conc. = Concentration

ppm = part(s) per million = mg/kg

mg/kg = milligram(s) per kilogram

Reporting Limit (mg/kg) : Sum (OP & NP) : 10

Remark:

- The list of alkylphenols is summarized in table of Appendix.

Alkylphenol Ethoxylates (APEO) Content Test

Test Method I : For Textile and Other materials:
With reference to EN ISO 18254-1, analysis by Liquid Chromatograph Mass Spectrometer (LC-MS)

Test Method II : For Leather:
With reference to EN ISO 18218-1 and EN ISO 18254-1

Tested Item(s) : I001 White fabric with transparent adhesive

Maximum Limit:	Others: 100 mg/kg (Sum) Recycled materials: 1000 mg/kg (Sum)
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Tested Item(s)	Test Method	Result			Conclusion
		Detected Analyte(s)	Conc.	Unit	
I001	I	ND	ND	mg/kg	PASS

Note:

ND = Not detected

">" = More than

Conc. = Concentration

ppm = part(s) per million = mg/kg

mg/kg = milligram(s) per kilogram

Reporting Limit (mg/kg) : Sum (OPEOs & NPEOs) : 20

Remark:

- The list of alkylphenol ethoxylates is summarized in table of Appendix.

Determination of Formaldehyde - Free and Hydrolysed Formaldehyde of Textile Products

EN ISO 14184:2011 / JIS L 1041

Proven that Formaldehyde is not detected from OOH SHIELD technology, and it reach safety level for Type 1 – Baby < 36 Months



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TEST RESULT

Formaldehyde Content Test

- Test Method I** : Textiles & Other Materials: EN ISO 14184-1
Test Method II : Leather: ISO 17226:2 and/or ISO 17226-1
Test Method III : Glue & 0-3 years old products: JIS L 1041: 2011 Method A
Test Method IV : Carpets and mats: GB 18587 Grade B.
Tested Item(s) : I001 White fabric with transparent adhesive

Maximum Limit:	Type I	For baby < 36 months: 16 mg/kg
	Type II	Others: 75 mg/kg
	Type III	Carpets and mats : < 0.050 mg/m²/h

Tested Item(s)	Type	Test Method	Result	Unit	Conclusion
I001	I	III	ND	mg/kg	PASS

Note:

ND = Not detected

“>” = More than

ppm = part(s) per million = mg/kg mg/kg = milligram(s) per kilogram

Reporting Limit : 16 mg/kg (Method I, II, III), 0.050 mg/m²/h (Method IV)

Determination of Tetrachlorophenol-, Trichlorophenol-, Dichlorophenol-, Monochlorophenol-Isomers and Pentachlorophenol Content of Textile Products

DIN EN ISO 17070:2015 / 64 LFBG B 82.02-08 (Modified)

Proven that Chlorophenols Content and Ortho-Phenylphenol (OPP) are not detected from OOH SHIELD technology



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TEST RESULT

Chlorophenols Content Test

Test Method : With reference to ISO 17070:2015 or 64 LFBG B 82.02-08 (Modified). Potassium hydroxide extraction, derivatisation and analysis by Gas Chromatograph Mass Spectrometer (GC-MS).

Tested Item(s) : I001 White fabric with transparent adhesive

Maximum Limit:	0.5 mg/kg (Each)			
Tested Item(s)	Result			Conclusion
	Detected Analyte(s)	Conc.	Unit	
I001	ND	ND	mg/kg	PASS

Note:

ND = Not detected

ppm = part(s) per million = mg/kg

Reporting Limit (mg/kg) : Each : 0.5

">" = More than

mg/kg = milligram(s) per kilogram

Remark:

- The list of chlorophenols is summarized in table of Appendix.

Ortho-phenylphenol (OPP) Test

Test Method : 1 M KOH extraction, 16 hours at 90 degrees C, derivatization and analysis § 64 LFBG B 82.02-08 or DIN EN ISO 17070:2015.

Tested Item(s) : I001 White fabric with transparent adhesive

Maximum Limit:	1000 mg/kg			
Tested Item(s)	Result			Conclusion
	Detected Analyte(s)	Conc.	Unit	
I001	ND	ND	mg/kg	PASS

Note:

ND = Not detected

ppm = part(s) per million = mg/kg

Reporting Limit (mg/kg) : 100

">" = More than

mg/kg = milligram(s) per kilogram

Determination of the Phthalate Content of Textile Products EN ISO 14389: 2014 / US CPSC-CH-C1001-09.4

Proven that Phthalate Content are not detected from OOH SHIELD technology

Phthalates Content Test

Test Method I : Textile: CPSC-CH-C1001-09.4 and EN ISO 14389: 2014.

Test Method II : Others: CPSC-CH-C1001-09.4, analysis by Gas Chromatograph Mass Spectrometer (GC-MS).

Tested Item(s) : I001 White fabric with transparent adhesive

Maximum Limit:	500 mg/kg (Each) 1000 mg/kg (Sum)
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Tested Item(s)	Test method	Result			Conclusion
		Detected Analyte(s)	Conc.	Unit	
I001	I	ND	ND	mg/kg	PASS

Note:

ND = Not detected

ppm = part(s) per million = mg/kg

Reporting Limit (mg/kg) : Each : 50

“>” = More than

mg/kg = milligram(s) per kilogram

Conc. = Concentration

Remark:

- The list of phthalates is summarized in table of Appendix.