

Test Report No: ACCHL250002501

Date: 27-May-2025

Page 1 of 11

PROTERIAL THAI ENAMEL WIRE CO., LTD.

171 MOO 12 BANGNA-TRAD KM.43 BANGWUA, BANGPAKONG, CHACHOENGSAO, 24180 THAILAND

The following sample(s) was/were submitted and identified by the client as:

Sample Name : Polyester-imide overcoated with polyamide-imide and self-bonding overcoated  
Part No. : BF-AMW-XV  
Country of Origin : Thailand  
Client Reference : BN-AMW-XV  
Information

The following sample(s) was/were identified by SGS as:

Sample Number : ACC25-0000857-0001  
Sample Condition : As per Attached photograph.  
Quantity Submitted : 1 roll  
Sample Received Date : May 20 2025  
Testing Period : May 20 - May 27 2025  
Test Requested : In accordance with the ELV Directive 2000/53/EC and its amendment directives.  
Selected test (s) as requested by client.  
Test Method(s) : Please refer to next page(s)  
Test Result(s) : Please refer to next page(s)  
Conclusion : Base on the performed tests on submitted sample(s), the test results of Cadmium (Cd), Lead (Pb), Mercury (Hg), Hexavalent chromium (Cr-VI) comply with the limits as set by the Article 4 (2) of ELV Directive 2000/53/EC where the decision rules based on simple acceptance which the probability of false accept may be as high as 50% in case the results is exactly on the tolerance limit.

Signed for and on behalf of  
SGS (Thailand) Limited



Anchalee Wunnaphuek  
Acting-RSTS Lab Manager

FOLDER NUMBER : ACC25-0000857

628609

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Test Report No: ACCHL250002501

Date: 27-May-2025

Page 2 of 11

## Test Result(s) :

Test Item(s)	Unit	Method	Result	MDL	Limit
Lead(Pb)	mg/kg	With reference to IEC 62321-5:2013, analysis was performed by ICP-OES.	ND	2	1000
Cadmium(Cd)	mg/kg	With reference to IEC 62321-5:2013, analysis was performed by ICP-OES.	ND	2	100
Mercury(Hg)	mg/kg	With reference to IEC 62321-4:2013+AMD1:2017, analysis was performed by ICP-OES.	ND	2	1000
Hexavalent Chromium(CrVI)	µg/cm <sup>2</sup>	IEC 62321-7-1 edition 1.0 : 2015 for Hexavalent Chromium Content, Analyzed by UV/Vis Spectrometry.	ND	0.10	-
Polybromobiphenyl (PBBs)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	-	-
Monobromobiphenyl (MonoBB)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Dibromobiphenyl (DiBB)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Tribromobiphenyl (TriBB)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Tetrabromobiphenyl (TetraBB)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Pentabromobiphenyl (PentaBB)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Hexabromobiphenyl (HexaBB)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Heptabromobiphenyl (HeptaBB)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Octabromobiphenyl (OctaBB)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Nonabromobiphenyl (NonaBB)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Decabromobiphenyl (DecaBB)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Polybromodiphenyl ether(PBDEs)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	-	-
Monobromodiphenyl ether (MonoBDE)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-

FOLDER NUMBER : ACC25-0000857

628609

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Test Report No: ACCHL250002501

Date: 27-May-2025

Page 3 of 11

Test Item(s)	Unit	Method	Result	MDL	Limit
Dibromodiphenyl ether (DiBDE)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Tribromodiphenyl ether (TriBDE)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Tetrabromodiphenyl ether(TetraBDE)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Pentabromodiphenyl ether (PentaBDE)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Hexabromodiphenyl ether(HexaBDE)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Heptabromodiphenyl ether (HeptaBDE)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Octabromodiphenyl ether (OctaBDE)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Nonabromodiphenyl ether (NonaBDE)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Decabromodiphenyl ether (DecaBDE)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Hexabromocyclododecane (HBCDD)#	mg/kg	With reference to IEC 62321-9:2021. Analysis was perform by GC/MS.	ND	20	-
Perfluorooctane sulfonates (PFOS)#	mg/kg	With reference to EN 17681-1:2022, analysis was performed by HPLC-MS or LC-MS/MS.	ND	1	-
Perfluorooctane Sulfonamide(PFOSA)#	mg/kg	With reference to EN 17681-1:2022, analysis was performed by HPLC-MS or LC-MS/MS.	ND	1	-
2-(N-methylperfluoro-1-octane sulfonamido) - ethanol (N-MeFOSE)#	mg/kg	With reference to EN 17681-1:2022, analysis was performed by HPLC-MS or LC-MS/MS.	ND	1	-
2-(N-ethylperfluoro-1-octane sulfonamido) - ethanol (N-EtFOSE)#	mg/kg	With reference to EN 17681-1:2022, analysis was performed by HPLC-MS or LC-MS/MS.	ND	1	-
N-Methyl-Perfluorooctane sulfonamide(N-Me-FOSA)#	mg/kg	With reference to EN 17681-1:2022, analysis was performed by HPLC-MS or LC-MS/MS.	ND	1	-
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)#	mg/kg	With reference to EN 17681-1:2022, analysis was performed by HPLC-MS or LC-MS/MS.	ND	1	-

FOLDER NUMBER : ACC25-0000857

628609

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Test Report No: ACCHL250002501

Date: 27-May-2025

Page 4 of 11

Test Item(s)	Unit	Method	Result	MDL	Limit
Actinolite#	--	With reference to EPA 600/R-93/116 method. Analysis was performed by SM and PLM	Negative	-	-
Amosite#	--	With reference to EPA 600/R-93/116 method. Analysis was performed by SM and PLM	Negative	-	-
Anthophyllite#	--	With reference to EPA 600/R-93/116 method. Analysis was performed by SM and PLM	Negative	-	-
Chrysotile#	--	With reference to EPA 600/R-93/116 method. Analysis was performed by SM and PLM	Negative	-	-
Crocidolite#	--	With reference to EPA 600/R-93/116 method. Analysis was performed by SM and PLM	Negative	-	-
Tremolite#	--	With reference to EPA 600/R-93/116 method. Analysis was performed by SM and PLM	Negative	-	-

#### Test part description

Result : metal with plating

Note :

(a) mg/kg = ppm ; 0.1wt% = 1000 ppm

(b) ug/cm2 = microgram/centremeter square

(c) ND = Not Detected (Less than MDL)

(d) MDL = Method Detection Limit

(e) The result of Hexavalent Chromium (Cr(VI)) = a. The sample is positive for CrVI if the CrVI concentration is greater than 0.13 ug/cm2. The sample coating is considered to contain CrVI

b. The sample is negative for CrVI if CrVI is ND (concentration less than 0.10 ug/cm2). The coating is considered a non-CrVI based coating

c. The result between 0.10 ug/cm2 and 0.13 ug/cm2 is considered to be inconclusive - unavoidable coating variations may influence the determination

(f) "-" = Not regulated

(g) For corrosion protection coatings on metals: Information on storage conditions and production date of the tested sample is unavailable and thus results of Cr(VI) represent status of the sample at the time of testing represent status of the sample at the time of testing.

Test(s) marked \* on test report is/are not included in the accreditation scope.

Test(s) marked # on this Report was tested/analyzed by an external laboratory with prior approval of the client.

FOLDER NUMBER : ACC25-0000857

628609

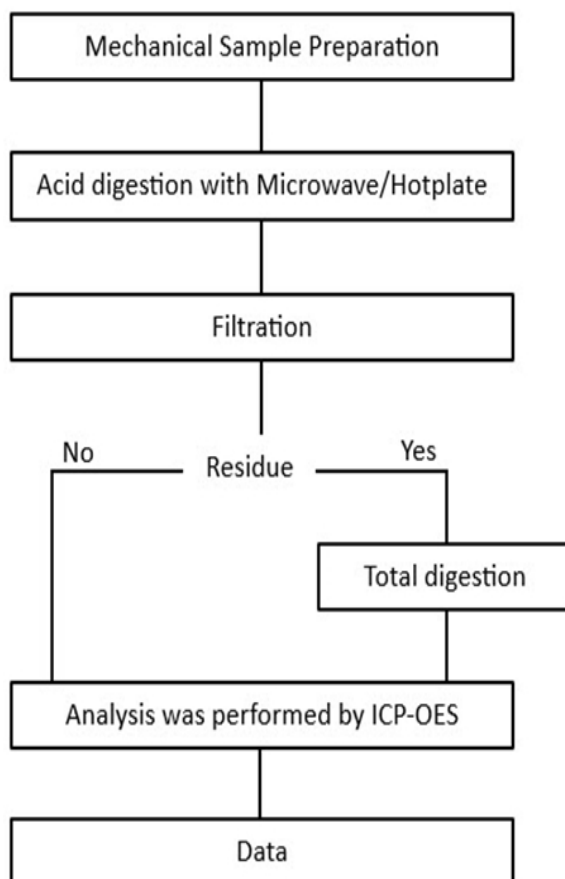
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## Flow chart of Pb, Cd, Hg Testing

(Test method : IEC 62321)



FOLDER NUMBER : ACC25-0000857

628609

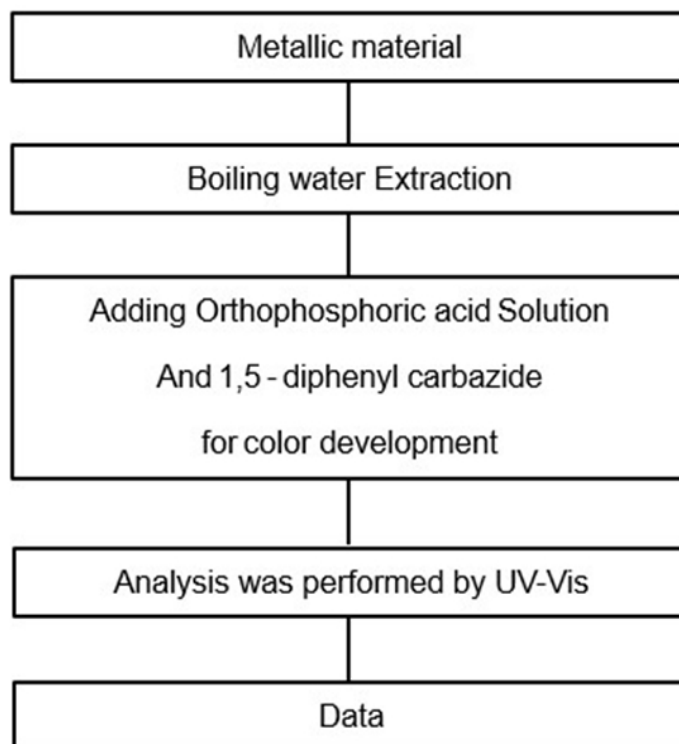
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## Flow chart of Hexavalent Chromium Testing

(Test method : IEC 62321)



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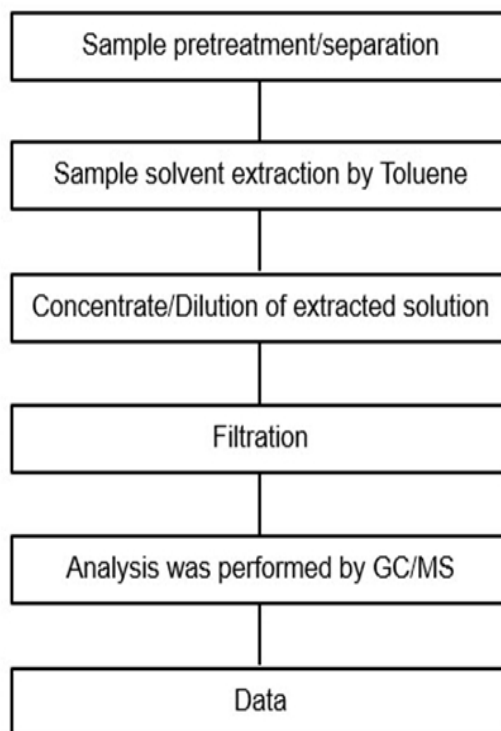
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## Flow chart of PBBs, PBDEs Testing

(Test method : IEC 62321)



FOLDER NUMBER : ACC25-0000857

628609

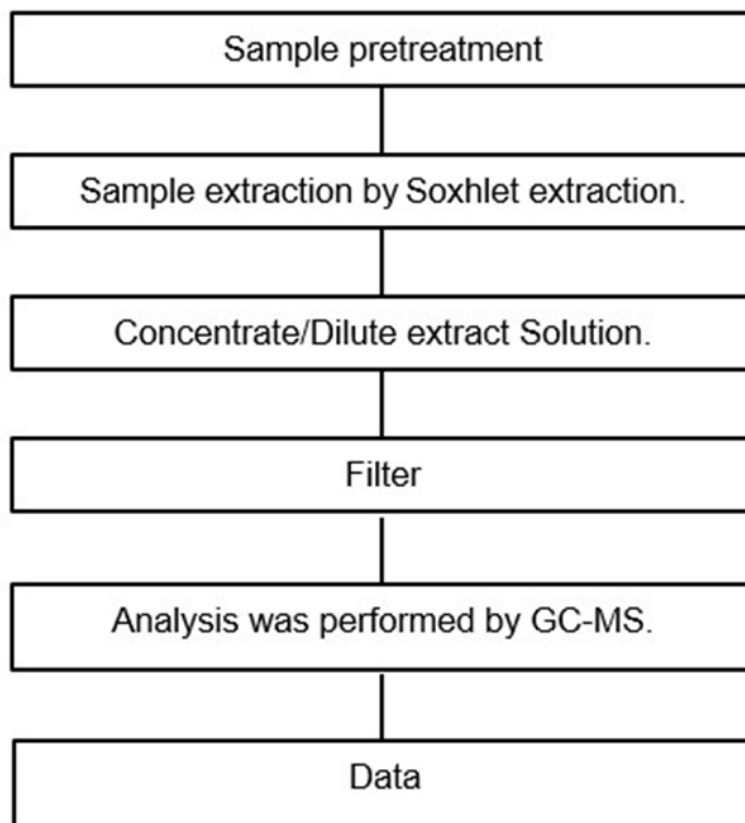
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## Flow chart of HBCDD Analysis

(Test method : IEC 62321-9 : 2021)



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628609

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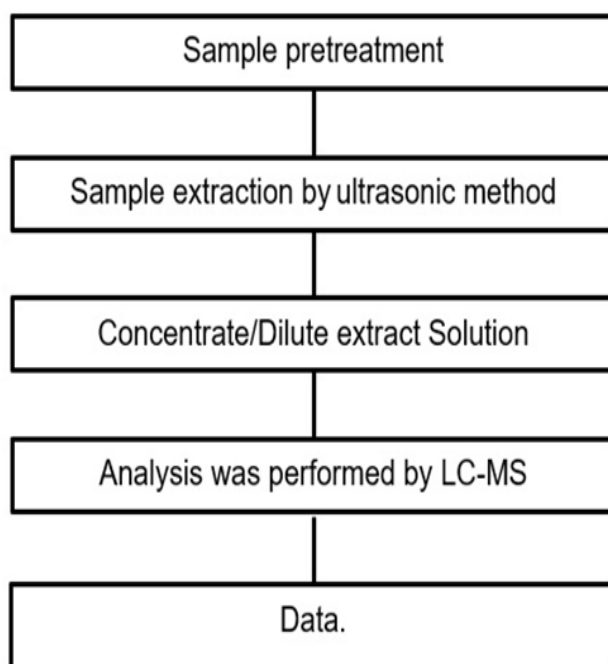
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### Flow chart of PFOS Analysis

(Test method : EN 17681-1 : 2022)



FOLDER NUMBER : ACC25-0000857

628609

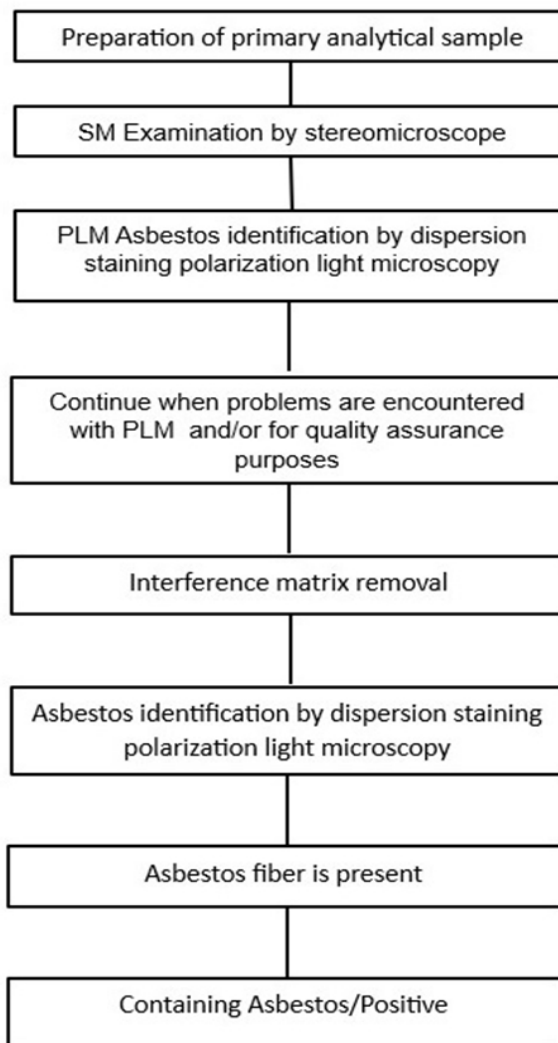
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## Flow chart of determination Asbestos Testing

(Test method : EPA 600/R-93/116)



FOLDER NUMBER : ACC25-0000857

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Test Report No: ACCHL250002501

Date: 27-May-2025

Page 11 of 11

## Sample Photo:



**ACC25-0000857-0001**

\*\*\*End of Report\*\*\*

FOLDER NUMBER : ACC25-0000857

**628609**

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