

Test Report No: ACCHL250002717

Date: 27-May-2025

Page 1 of 10

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 : Self-lubricant polyester
Part No. : PEW-E
Country of Origin : Thailand
Client Reference : PEW-HE
Information

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

Sample Number : ACC25-0000859-0003
Sample Condition : As per Attached photograph.
Quantity Submitted : 1 roll
Sample Received Date : May 20 2025
Testing Period : May 20 - May 23 2025
Test Requested : In accordance with the EU RoHS Directive 2011/65/EU (Annex II) [amended by Directive (EU) 2015/863]. 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 : Based on the performed tests on submitted sample(s), the results of Cadmium (Cd), Lead (Pb), Mercury (Hg), Hexavalent chromium (Cr-VI), Polybrominated biphenyls (PBBs), Polybrominated diphenyl ethers (PBDEs) and Phthalates such as Bis(2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP) comply with the limits as set by RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU 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.

FOLDER NUMBER : ACC25-0000859

628254

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/terms-and-conditions.aspx> and , for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/terms-and-conditions/terms-e-document.aspx>.

Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company.

Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Test Report No: ACCHL250002717

Date: 27-May-2025

Page 2 of 10

Signed for and on behalf of
SGS (Thailand) Limited



Anchalee Wunnaphuek
Acting-RSTS Lab Manager

FOLDER NUMBER : ACC25-0000859

628254

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/terms-and-conditions.aspx> and , for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/terms-and-conditions/terms-e-document.aspx>.

Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company.

Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Test Report No: ACCHL250002717

Date: 27-May-2025

Page 3 of 10

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 ²	With reference to IEC 62321-7-1:2015, analysis was performed by UV-Vis	ND	0.10	-
Polybrominated biphenyls (PBB)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	-	1000
Monobrominated biphenyl (MonoBB)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Dibrominated biphenyl (DiBB)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Tribrominated biphenyl (TriBB)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Tetrabrominated biphenyl (TetraBB)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Pentabrominated biphenyl (PentaBB)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Hexabrominated biphenyl (HexaBB)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Heptabrominated biphenyl (HeptaBB)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Octabrominated biphenyl (OctaBB)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Nonabrominated biphenyl (NonaBB)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Decabrominated biphenyl (DecaBB)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Polybrominated diphenyl ether (PBDE)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	-	1000
Monobrominated diphenyl ether (MonoBDE)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-

FOLDER NUMBER : ACC25-0000859

628254

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/terms-and-conditions.aspx> and , for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/terms-and-conditions/terms-e-document.aspx>.

Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company.

Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Test Report No: ACCHL250002717

Date: 27-May-2025

Page 4 of 10

Test Item(s)	Unit	Method	Result	MDL	Limit
Dibrominated diphenyl ether (DiBDE)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Tribrominated diphenyl ether (TriBDE)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Tetrabrominated diphenyl ether (TetraBDE)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Pentabrominated diphenyl ether (PentaBDE)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Hexabrominated diphenyl ether (HexaBDE)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Heptabrominated diphenyl ether (HeptaBDE)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Octabrominated diphenyl ether (OctaBDE)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Nonabrominated diphenyl ether (NonaBDE)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Decabrominated diphenyl ether (DecaBDE)*	mg/kg	With reference to IEC 62321-6:2015, analysis was performed by GC-MS.	ND	5	-
Dibutyl Phthalate(DBP)*	mg/kg	With reference to IEC 62321-8 : 2017, Analysis was performed by GC-MS	ND	50	1000
Benzyl Butyl Phthalate(BBP)*	mg/kg	With reference to IEC 62321-8 : 2017, Analysis was performed by GC-MS	ND	50	1000
Bis-(2-ethylhexyl) Phthalate(DEHP)*	mg/kg	With reference to IEC 62321-8 : 2017, Analysis was performed by GC-MS	ND	50	1000
Diisobutyl Phthalate(DIBP)*	mg/kg	With reference to IEC 62321-8 : 2017, Analysis was performed by GC-MS	ND	50	1000

Test part description

Result : metal with plating

FOLDER NUMBER : ACC25-0000859

628254

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/terms-and-conditions.aspx> and , for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/terms-and-conditions/terms-e-document.aspx>.

Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company.

Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Test Report No: ACCHL250002717

Date: 27-May-2025

Page 5 of 10

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.

Remarks :

- (1) The maximum permissible limit is quoted from RoHS Directive (EU) 2015/863.
- (2) IEC 62321 series is equivalent to EN 62321 series.
- (3) The restriction of DEHP, BBP, DBP and DIBP shall apply to medical devices, including in vitro medical devices, and monitoring and control instruments, including industrial monitoring and control instruments, from 22 July 2021

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

FOLDER NUMBER : ACC25-0000859

628254

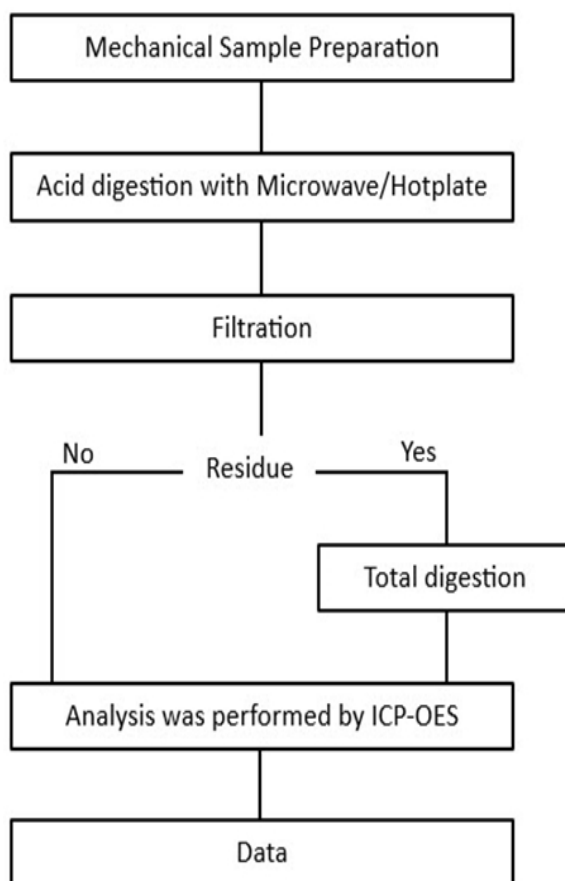
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/terms-and-conditions.aspx> and , for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/terms-and-conditions/terms-e-document.aspx>.

Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company.

Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Flow chart of Pb, Cd, Hg Testing

(Test method : IEC 62321)



FOLDER NUMBER : ACC25-0000859

628254

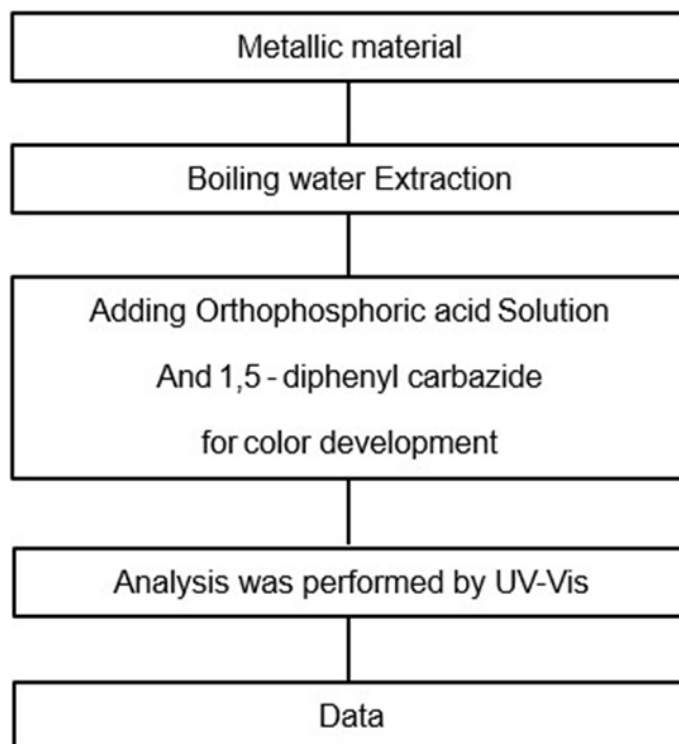
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/terms-and-conditions.aspx> and , for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/terms-and-conditions/terms-e-document.aspx>.

Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company.

Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Flow chart of Hexavalent Chromium Testing

(Test method : IEC 62321)



FOLDER NUMBER : ACC25-0000859

628254

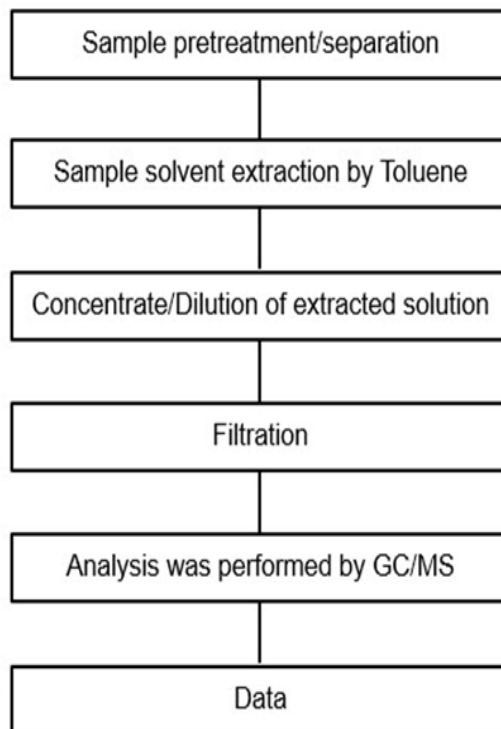
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/terms-and-conditions.aspx> and , for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/terms-and-conditions/terms-e-document.aspx>.

Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company.

Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Flow chart of PBBs, PBDEs Testing

(Test method : IEC 62321)



FOLDER NUMBER : ACC25-0000859

628254

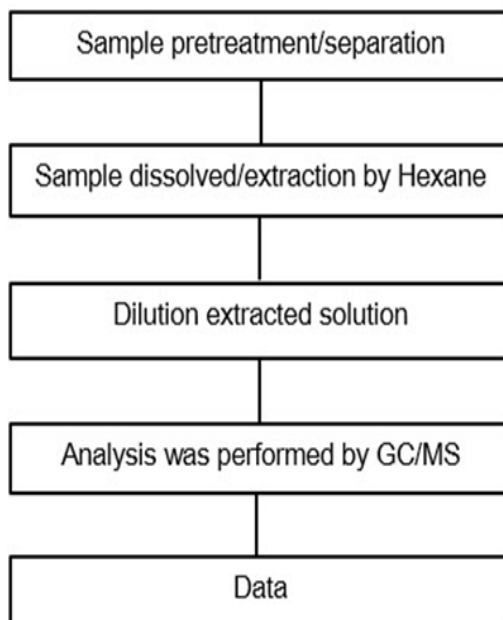
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/terms-and-conditions.aspx> and , for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/terms-and-conditions/terms-e-document.aspx>.

Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company.

Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Flow chart of Phthalates Analysis

(Test method : IEC 62321-8)



FOLDER NUMBER : ACC25-0000859

628254

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/terms-and-conditions.aspx> and , for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/terms-and-conditions/terms-e-document.aspx>.

Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company.

Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Test Report No: ACCHL250002717

Date: 27-May-2025

Page 10 of 10

Sample Photo:



ACC25-0000859-0003

End of Report

FOLDER NUMBER : ACC25-0000859

628254

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/terms-and-conditions.aspx> and , for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/terms-and-conditions/terms-e-document.aspx>.

Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company.

Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.