

# Verification Report

No. CANEC2227050101

Date: 23 Dec 2022

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Client Name : GUANGZHOU GUANXIE FAN MANUFACTURING CO.LTD.

Client Address : 2ND FLOOR, BUILDING 4, NO.7, DAGANG LANHUA STREET, SHIJING TOWN, BAIYUN DISTRICT, GUANGZHOU CITY, GUANGDONG PROVINCE, CHINA

Sample Name : DC FAN  
 Tested Basic Model No. GD8025H24B  
 (P.O.No) :  
 Client Ref. Info. : Used for GD2510H12B/ GD3010H12B/ GD4010H12B/ GD4020H24B/ GD4028H24B/ GD5010H12B/ GD5015H12B/ GD6010H12B/ GD6015H12B/ GD6020H24B/ GD6025H24B/ GD6038H24B/ GD7010H24B/ GD7015H24B/ GD7020H24B/ GD7025H24B/ GD8010H24B/ GD8015H24B/ GD8020H24B/ GD8038H24B/ GD9225H24B/ GD9238H24B/ GD12025H24B/ GD12038H24B/ GD15050H24B/ GD17250H24B/ GD18060H24B/ GD20060H24B/ GD22060H24B/ GD25489H24B/ GR5015H12B/ GR7530H24B/ GR9733H24B/ GR10015H12F / GR12032H24B

The above sample(s) and information were provided by the client.

SGS Job No. : CP22-066965 - GZ  
 Date of Sample Received : 14 Dec 2022  
 Verification Period : 14 Dec 2022 - 23 Dec 2022  
 Verification Requested : With reference to RoHS Directive (EU) 2015/863 amending 2011/65/EU.  
 Verification Method(s) : Please refer to next page(s).  
 Verification Result(s) : Please refer to next page(s).

### Test Result Summary

Test Items	Conclusion
EU RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU- Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBBs), Polybrominated diphenyl ethers (PBDEs), Bis(2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP)	PASS



Signed for and on behalf of  
SGS-CSTC Standards Technical Services Co., Ltd. Guangzhou Branch

*Tyler Zhang*

Tyler Zhang  
Approved Signatory

scan to see the report



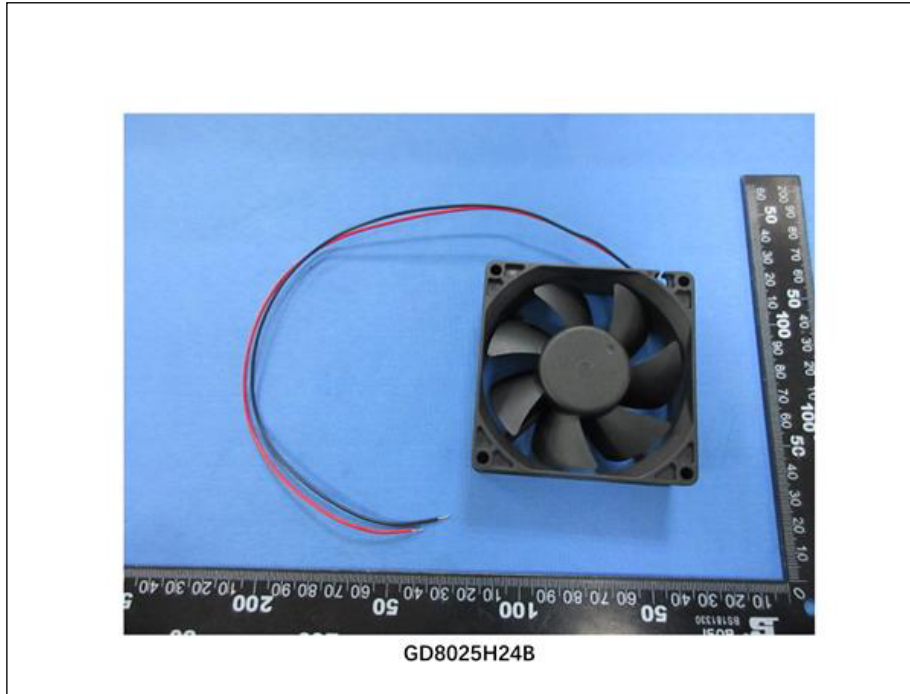
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Photo of Submitted Sample



Verification Method(s) :

1. With reference to IEC 62321-2:2021, disassembly and disjointment were performed for the submitted samples.
2. With reference to IEC 62321-1:2013, tests were performed for the samples indicated by the photos in this report
  - (1) With reference to IEC 62321-3-1:2013, screening by EDXRF spectroscopy.
  - (2) Wet chemical test method: With reference to IEC 62321-4:2013+A1:2017, IEC62321-5:2013, IEC 62321-7-1:2015, IEC 62321-7-2:2017, ISO 17075-1:2017, IEC 62321-6:2015 and IEC62321-8:2017, analyzed by ICP-OES, UV-Vis and GC-MS.

Verification Part Description :

SN ID	Sample No	SGS Sample ID	Description
SN1	A1	CAN22-270501.001	Black plastic frame
SN2	A2	CAN22-270501.002	Black plastic (wire insulation)
SN3	A3	CAN22-270501.003	Red plastic (wire insulation)
SN4	A4	CAN22-270501.004	Silvery metal wire
SN5	A5	CAN22-270501.005	Black plastic part
SN6	A6	CAN22-270501.006	Yellow glue
SN7	A7	CAN22-270501.007	Green "PCB"



SN ID	Sample No	SGS Sample ID	Description
SN8	A8	CAN22-270501.008	Silvery metal solder
SN9	A9	CAN22-270501.009	Black body
SN10	A10	CAN22-270501.010	Black body
SN11	A11	CAN22-270501.011	Black plastic shell with white printing
SN12	A12	CAN22-270501.012	Silvery metal shell
SN13	A13	CAN22-270501.013	Silver-gray metal sheet
SN14	A14	CAN22-270501.014	Silvery metal pin
SN15	A15	CAN22-270501.015	Brown paper sheet with liquid
SN16	A16	CAN22-270501.016	Black rubber cover
SN17	A17	CAN22-270501.017	Light blue surfaced metal ring
SN18	A18	CAN22-270501.018	Dark grey magnet
SN19	A19	CAN22-270501.019	Silvery metal shaft
SN20	A20	CAN22-270501.020	Silvery metal gear
SN21	A21	CAN22-270501.021	Black plastic ring
SN22	A22	CAN22-270501.022	Black surfaced metal spring
SN23	A23	CAN22-270501.023	Copper-colored enamel-insulated wire
SN24	A24	CAN22-270501.024	Black surfaced metal snap ring
SN25	A25	CAN22-270501.025	Silvery metal bead
SN26	A26	CAN22-270501.026	Brown plastic frame
SN27	A27	CAN22-270501.027	Silvery metal cover
SN28	A28	CAN22-270501.028	Silvery metal ring
SN29	A29	CAN22-270501.029	Silvery metal pin
SN30	A30	CAN22-270501.030	Black plastic part
SN31	A31	CAN22-270501.031	Silvery metal (silicon steel sheet)



Verification Results :

In accordance with the result of material risk assessment, the following disjointed parts in the submitted sample have been verified. (Unless otherwise specified, the unit is mg/kg).

Test Item(s)	A1	A2	A3	A4	A5	A6	A7	A8
Pb	BL	BL	BL	BL	BL	BL	BL	BL
Cd	BL	BL	BL	BL	BL	BL	BL	BL
Hg	BL	BL	BL	BL	BL	BL	BL	BL
Cr(VI)▼	BL	BL	BL	BL	BL	BL	BL	BL
PBBs	ND	BL	BL	---	ND	BL	ND	---
PBDEs	ND	BL	BL	---	ND	BL	ND	---
DBP	ND	ND	ND	---	ND	ND	ND	---
BBP	ND	ND	ND	---	ND	ND	ND	---
DEHP	ND	ND	ND	---	ND	ND	ND	---
DIBP	ND	ND	ND	---	ND	ND	ND	---
Conclusion	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS

Test Item(s)	A9	A10	A11	A12	A13	A14	A15	A16
Pb	BL	OL▲	BL	BL	BL	BL	BL	BL
Cd	BL	BL	BL	BL	BL	BL	BL	BL
Hg	BL	BL	BL	BL	BL	BL	BL	BL
Cr(VI)▼	BL	BL	BL	BL	BL	BL	BL	BL
PBBs	BL	ND	BL	---	---	---	BL	BL
PBDEs	BL	ND	BL	---	---	---	BL	BL
DBP	BL	ND	BL	---	---	---	ND	ND
BBP	BL	ND	BL	---	---	---	ND	ND
DEHP	BL	ND	BL	---	---	---	ND	ND
DIBP	BL	ND	BL	---	---	---	ND	ND
Conclusion	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS

Test Item(s)	A17	A18	A19	A20	A21	A22	A23	A24
Pb	BL	BL	BL	BL	BL	BL	BL	BL
Cd	BL	BL	BL	BL	BL	BL	BL	BL
Hg	BL	BL	BL	BL	BL	BL	BL	BL
Cr(VI)▼	BL	13	ND	ND	BL	ND	BL	ND
PBBs	---	BL	---	---	BL	---	BL	---



Test Item(s)	A17	A18	A19	A20	A21	A22	A23	A24
PBDEs	---	BL	---	---	BL	---	BL	---
DBP	---	---	---	---	BL	---	BL	---
BBP	---	---	---	---	BL	---	BL	---
DEHP	---	---	---	---	BL	---	BL	---
DIBP	---	---	---	---	BL	---	BL	---
<b>Conclusion</b>	<b>PASS</b>	<b>PASS</b>	<b>PASS</b>	<b>PASS</b>	<b>PASS</b>	<b>PASS</b>	<b>PASS</b>	<b>PASS</b>

Test Item(s)	A25	A26	A27	A28	A29	A30	A31
Pb	BL	BL	BL	BL	BL	BL	BL
Cd	BL	BL	BL	BL	BL	BL	BL
Hg	BL	BL	BL	BL	BL	BL	BL
Cr(VI)▼	ND	BL	ND	ND	BL	BL	ND
PBBs	---	BL	---	---	---	ND	---
PBDEs	---	BL	---	---	---	ND	---
DBP	---	BL	---	---	---	ND	---
BBP	---	BL	---	---	---	ND	---
DEHP	---	BL	---	---	---	ND	---
DIBP	---	BL	---	---	---	ND	---
<b>Conclusion</b>	<b>PASS</b>	<b>PASS</b>	<b>PASS</b>	<b>PASS</b>	<b>PASS</b>	<b>PASS</b>	<b>PASS</b>



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**Notes:**

(1) Interpretation of screening results by X-ray fluorescence spectrometry (XRF):

(a) Screening limits in mg/kg for regulated elements in various matrices according to IEC 62321-1:2013 Annex A as below table.

Element	Polymer	Metal	Composite Materials
Cd	$BL \leq (70-3\sigma) < X < (130+3\sigma) \leq OL$	$BL \leq (70-3\sigma) < X < (130+3\sigma) \leq OL$	$LOD < X < (150+3\sigma) \leq OL$
Pb	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (500-3\sigma) < X < (1500+3\sigma) \leq OL$
Hg	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (500-3\sigma) < X < (1500+3\sigma) \leq OL$
Br	$BL \leq (300-3\sigma) < X$	Not applicable	$BL \leq (250-3\sigma) < X$
Cr	$BL \leq (700-3\sigma) < X$	$BL \leq (700-3\sigma) < X$	$BL \leq (500-3\sigma) < X$

(b) If the maximum allowed level restricts PBB/PBDE and Cr(VI) rather than Br and Cr, the exceptions are the XRF determinations of Br and Cr. If the quantitative results for the elements Br and/or are higher than the limit (for Br calculated based on the stoichiometry of Br in the most common congeners of PBB/PBDE), the sample is “inconclusive”.

(c) Results are obtained by EDXRF for primary screening, LOD = Limit of Detection, BL = Below Limit, OL = Over Limit, IN (The symbol X marks the region)= Inconclusive, where further investigation is necessary, and further chemical testing by ICP-OES (for Cd, Pb, Hg), UV-Vis (for Cr(VI)) and GC-MS (for PBBs/PBDEs) are recommended to be performed.

(d) The EDXRF screening test for RoHS elements – The reading may be different to the actual content in the sample be of non-uniformity composition.

(2) Screening results of Phthalates (PHTH) are for primary screening, and further chemical testing by GC-MS (for DBP, BBP, DEHP and DIBP) are recommended to be performed if the concentration exceeds the below warning value (unit: mg/kg).

Test Items	CAS No.	Polymer/ Composite Materials
Dibutyl Phthalate (DBP)	84-74-2	$BL \leq 600 < X$
Benzylbutyl Phthalate (BBP)	85-68-7	$BL \leq 600 < X$
Bis(2-ethylhexyl) Phthalate (DEHP)	117-81-7	$BL \leq 600 < X$
Diisobutyl Phthalate (DIBP)	84-69-5	$BL \leq 600 < X$

(3) Interpretation of results by chemical tests:

(a) mg/kg = 0.0001%, MDL=Method detection Limit, ND = Not Detected (<MDL), --- = Not Applicable.



(b) Unit and MDL in wet chemical test

Test Items	Pb	Cd	Hg	DBP	BBP	DEHP	DIBP
Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
MDL	10	10	10	100	100	100	100

The MDL for single compound of PBBs and PBDEs is 100 mg/kg.

MDL of Cr(VI) for polymer, composite and leather sample is 10 mg/kg.

MDL of Cr(VI) for metal sample is 0.10µg/cm<sup>2</sup>.

(c) ▽ =Metal sample

a. The sample is positive for Cr(VI) if the Cr(VI) concentration is greater than 0.13µg/cm<sup>2</sup>.

The sample coating is considered to contain Cr(VI)

b. The sample is negative for Cr(VI) if Cr(VI) is ND (concentration less than 0.10µg/cm<sup>2</sup>).

The coating is considered a non-Cr(VI) based coating

c. The result between 0.10µg/cm<sup>2</sup> and 0.13µg/cm<sup>2</sup> is considered to be inconclusive

- unavoidable coating variations may influence the determination

Information on storage conditions and production date of the tested sample is unavailable and thus Cr(VI) results represent status of the sample at the time of testing.

(4) Restricted substances and maximum concentration values tolerated by weight in homogeneous materials under RoHS Directive: Cd: 0.01%, Pb/Hg/Cr(VI)/PBBs/PBDEs/DEHP/DBP/BBP/DIBP: 0.1%. The limit is quoted from RoHS Directive (EU) 2015/863.

(5) IEC 62321 series is equivalent to EN 62321 series.

Unless otherwise stated, the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule (  $w=0$ ) stated in ILAC-G8:09/2019.





(6)▲= According to the declaration from the client,

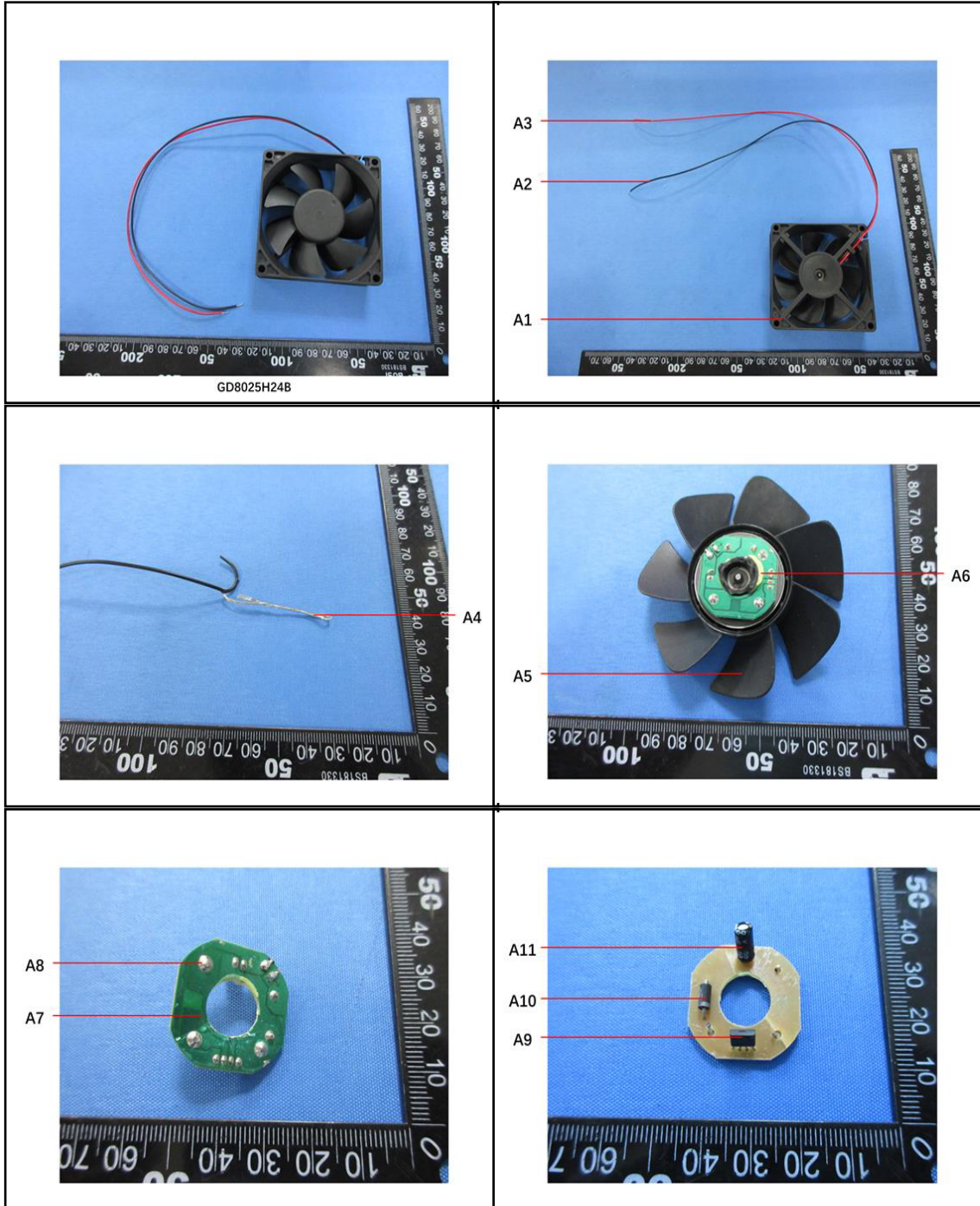
Lead (Pb) in No.A10 is exempted by EU RoHS directive 2011/65/EU based on [ANNEX III 7(c)-I]: Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound.



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Sample photo:



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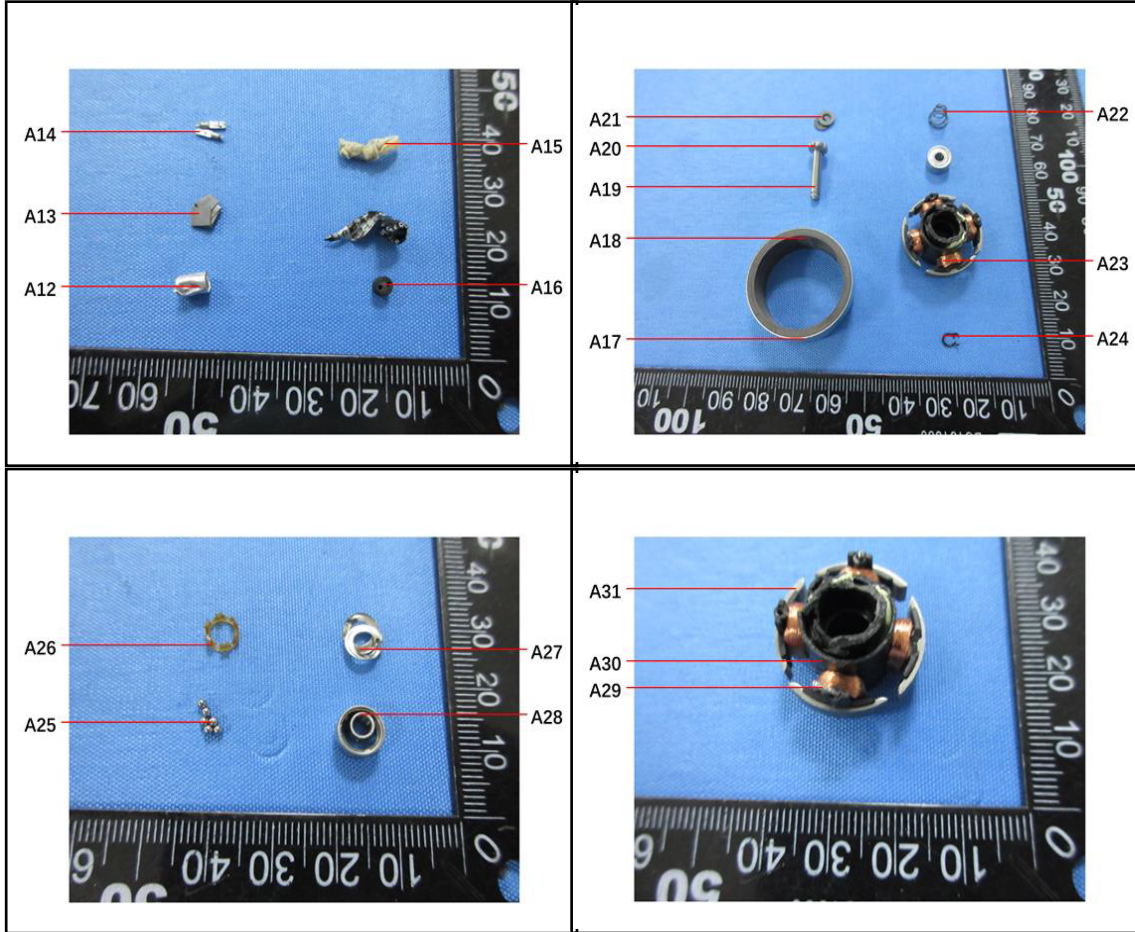
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