

E-Cigarette Aerosol Analysis Report

Report No. : TCT200427C056

Date : May. 06, 2020

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Applicant:

Modul-LEG s.r.o. ; Kfely 6 ; 36301 Ostrov

Address:**The following sample was submitted and identified by/on behalf of the client as:**

Sample Name:

HECCIG NICCO

Model No.:

Power level in testing:

Voltage/Wattage of tested sample is un-adjustable

Adjustable air inlet or not:

No

Sample Received Date:

2020.04.27

Testing Period:

2020.04.27—2020.05.06

Test Method:

Please refer to the following page(s).

Test Result(s):

Please refer to the following page(s).

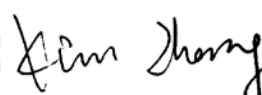
Test Items	Test Requested
1 Carbonyl Compounds: Formaldehyde, Acetaldehyde, Acrolein, Crotonaldehyde	Emission testing according to Article 20 of Tobacco Product Directive (2014/40/EU)
2 Metals: Aluminum, Chromium, Iron, Nickel, Tin, Lead, Cadmium, Arsenic, Antimony, Mercury, Copper	
3 Nicotine consistency	
4 CARBON MONOXIDE	
5 Nicotine-free Dry Particulate Matter and PG & VG	

Checked by



Noel Yin

Signed for and on behalf of TCT

Kim Zhang
Technical Manager

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Test Results:

Test Condition:

With reference to ISO 3308:2000 method parameter a, a smoke machine was used to collect the smoke.

Puff Duration	2.0s±0.02s
Puff Volume	35mL±0.3mL
Puff Frequency	30s±0.5s
Pressure Drop	< 300Pa
Total Number of Puff	8

The temperature and relative humidity of the test atmosphere during machine preparation and testing were kept within the following limits: temperature $\pm 2^{\circ}\text{C}$, relative humidity $\pm 5\%$

Sample Description:

No.1 NICCO

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1. Carbonyl Compounds Content(s)

Method: With reference to CORESTA RECOMMENDED METHOD N° 74, the carbonyls in mainstream tobacco smoke are trapped by passing each puff through an impinger device containing an acidified solution of 2,4-dinitrophenylhydrazine (DNPH) in acetonitrile. An aliquot of the smoke extract is then syringe-filtered and diluted with 1% Trizma™ base in aqueous acetonitrile. The samples are analyzed by reverse phase high - performance liquid chromatography and determined using a UV detector.

Test Item	CAS No.	Unit	MDL	LOQ	Content(s)
					No.1
Formaldehyde	50-00-0	ug/cigarette	0.6	2	7.29
Acetaldehyde	75-07-0	ug/cigarette	0.6	2	14.2
Acrolein	107-02-8	ug/cigarette	0.6	2	ND
Crotonaldehyde	4170-30-3	ug/cigarette	0.6	2	ND

- Note:
- ug = Microgram
 - ND = Not Detected (lower than MDL)
 - MDL = Method Detection Limit
 - LOQ = Limit of Quantitation

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2. Metals Content(s)

Method: With reference to Afnor XP D90-300-3, the aerosol was absorbed using a Cambridge filter, and the Cambridge filter was removed and placed in an Erlenmeyer flask, added to 20 mL of 5%(v/v) Nitric acid solution, shaken at 210 rpm for 60 min, filtered, and analyzed by ICP-MS.

Test Item	CAS No.	Unit	MDL	LOQ	Content(s)
					No.1
Aluminum(Al)	7429-90-5	ug/cigarette	0.075	0.25	ND
Chromium(Cr)	7440-47-3	ug/cigarette	0.015	0.05	ND
Iron(Fe)	7439-89-6	ug/cigarette	0.015	0.05	ND
Nickel(Ni)	7440-02-0	ug/cigarette	0.075	0.25	ND
Tin(Sn)	7440-31-5	ug/cigarette	0.75	2.5	ND
Lead(Pb)	7439-92-1	ug/cigarette	0.075	0.25	ND
Cadmium(Cd)	7440-43-9	ug/cigarette	0.015	0.05	ND
Arsenic(As)	7440-38-2	ug/cigarette	0.075	0.25	ND
Antimony(Sb)	7440-36-0	ug/cigarette	0.075	0.25	ND
Mercury(Hg)	7439-97-6	ug/cigarette	0.075	0.25	ND
Copper(Cu)	7440-50-8	ug/cigarette	0.075	0.25	ND

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3. Nicotine Consistency Test

Method: A reference liquid was prepared. A pharmaceutical nicotine inhaler was used as a comparator. Products were attached to a smoke machine, and the aerosol was collected in Cambridge filter pads. After trapping and solvent extraction, solution was analyzed by GC-MS and nicotine was dosed by comparing the areas obtained on the MS detector with those of standard solutions prepared in the laboratory under concentration conditions surrounding those of the samples.

Sample No.	Nicotine(CAS No.:54-11-5) Contents(mg/cigarette)					
	Sample 1*	Sample 2	Sample 3*	Sample 4	Sample 5*	AVG
No.1	ND	ND	ND	ND	ND	ND
Deviation(%)	0	-	0	-	0	-

- Note:
- mg = milligram
 - ND = Not Detected (lower than MDL)
 - MDL = Method Detection Limit = 0.015mg/cigarette
 - LOQ = Limit of Quantitation = 0.05mg/cigarette
 - * Values used for determination of consistency of nicotine emission

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4. CARBON MONOXIDE Content(s)

Method: With reference to ISO 8454:2007, cigarettes are smoked according to a standardised procedure. The carbon monoxide of the total gas phase of the smoke is determined by non-dispersive infrared analysis. The yield is reported on a per cigarette basis.

Test Item	CAS No.	Unit	MDL	LOQ	Content(s)
					No.1
CARBON MONOXIDE	630-08-0	mg/cigarette	0.015	0.05	0.091

- Note:
- mg = milligram
 - ND = Not Detected (lower than MDL)
 - MDL = Method Detection Limit
 - LOQ = Limit of Quantitation

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5. Nicotine-free Dry Particulate Matter and PG & VG Content(s)

Method: Smoking of the test cigarettes on an automatic smoking machine with simultaneous collection of total particulate matter in a glass fibre filter trap. Gravimetric determination of the mass of total particulate matter so collected. Extraction of the total particulate matter from the trap for the determination of the water and nicotine contents by gas chromatography. The dry particulate matter after deduction of its nicotine content, expressed as milligrams per cigarette.

Test Item	CAS No.	Unit	MDL	LOQ	Content(s)
					No.1
Total Particulate Matter	-	mg/cigarette	-	-	12
Water	7732-18-5	mg/cigarette	0.015	0.05	2.88
Dry Particulate Matter	-	mg/cigarette	-	-	9.12
Nicotine	54-11-5	mg/cigarette	0.015	0.05	0
Nicotine-free Dry Particulate Matter	-	mg/cigarette	-	-	9.12
PG & VG	57-55-6 56-81-6	mg/cigarette	0.015	0.05	2.82

- Note:
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 - MDL = Method Detection Limit
 - LOQ = Limit of Quantitation

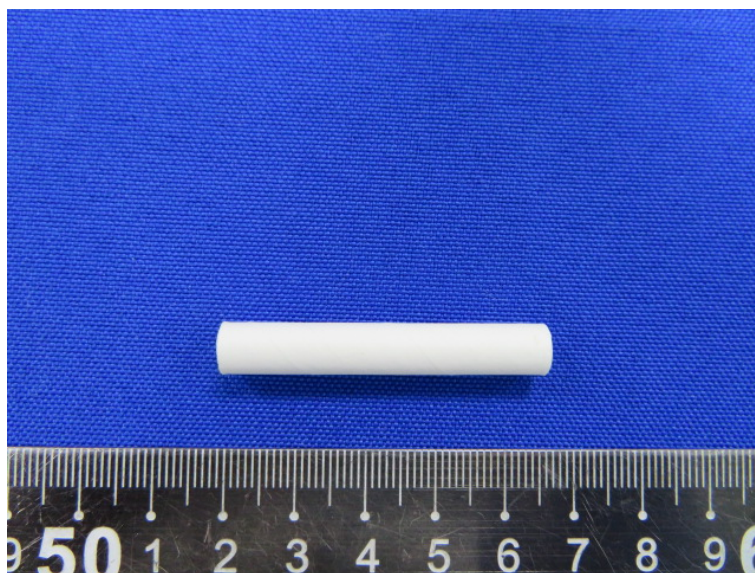
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Photo(s) of the sample(s)



NICCO

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

Remark: This report is considered invalidated without the Special Seal for Inspection of the TCT. This report shall not be altered, increased or deleted. The results shown in this test report refer only to the sample(s) tested. Without written approval of TCT, this test report shall not be copied except in full and published as advertisement.