Environmental
Testing Râșnov

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Environmental testing laboratory



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About us

Our laboratory carries out conformity tests on electrical, electronic and mechanical products against harmonised European standards, international standards and other technical specifications.

The laboratory has the technical and scientific capability to achieve high performance, ensured by qualified staff and high-performance instruments and equipment.

Our staff have the technical competence relevant to conformity testing, along with experience, training, impartiality and integrity proven over the years.

Our work guarantees the confidentiality and protection of the information provided by customers during the assessment and testing process.

The laboratory's strategy aims to extend its range of tests by acquiring new equipment, and to increase its credibility and reputation.

To this end, the laboratory has developed and documented a management system for its activities, which it maintains and continually improves, in order to best meet the needs and requirements of its customers.

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History

The laboratory has been active since 2016

Accredited by RENAR – the Romanian National Accreditation Body, according to SR EN ISO/IEC 17025:2018, since 2020 for environmental tests:

- ✓ *Cold test*
- ✓ *Dry heat test*
- ✓ *Damp heat test, steady state*
- ✓ *Damp heat test, cyclic*
- ✓ *Change of temperature test*
- ✓ *Salt mist test*

And since 2022 for vibration tests:

- ✓ *Random vibration test, combined with the change of temperature test*
- ✓ *Sinusoidal vibration test, combined with the change of temperature test*
- ✓ *Mechanical shock test*

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Testing equipment and capabilities

The main equipment used for temperature, climatic and vibration tests is made by:

- ***Vötsch Industrietechnik GmbH***
- ***Weiss Technik GmbH***
- ***CTS GmbH***
- ***TIRA GmbH***
- ***Vibration Research***
- ***PCB Piezotronics***
- ***Brüel & Kjær***















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Testing equipment and capabilities
Temperature and humidity tests

Climatic chamber, model **ClimeEvent C600/70a/5M (*Vötsch Industrietechnik)***
Test space volume: 600 litres

Test space dimensions:
Height / width / depth: 950 mm / 800 mm / 800 mm

Specifications for temperature tests:
Maximum temperature: +180 °C
Minimum temperature: -72 °C
Cooling rate: 6.0 K/min
Heating rate: 6.0 K/min
Temperature deviation over time: ±0.1 K … ±0.5 K
Temperature homogeneity in space: ±0.5 K … ±2.0 K

Specifications for climatic tests:
Maximum temperature: +95 °C
Minimum temperature: +10 °C
Temperature deviation over time: ±0.1 K … ±0.3 K
Temperature homogeneity in space: ±0.5 K … ±1.0 K
Humidity range: 10 % RH … 98 % RH
Humidity deviation: ±1 % RH … ±3 % RH
Dew point range: -3 °C … +94 °C





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Testing equipment and capabilities
Temperature and humidity tests

Climatic chamber, model **ClimeEvent C600/70/3 (*Vötsch Industrietechnik*)**
Test space volume: 600 litres

Test space dimensions:
Height / width / depth: 950 mm / 800 mm / 800 mm

Specifications for temperature tests:
Maximum temperature: +180 °C
Minimum temperature: -72 °C
Cooling rate: 3.0 K/min
Heating rate: 3.0 K/min
Temperature deviation over time: ±0.1 K … ±0.5 K
Temperature homogeneity in space: ±0.5 K … ±2.0 K

Specifications for climatic tests:
Maximum temperature: +95 °C
Minimum temperature: +10 °C
Temperature deviation over time: ±0.1 K … ±0.3 K
Temperature homogeneity in space: ±0.5 K … ±1.0 K
Humidity range: 10 % RH … 98 % RH
Humidity deviation: ±1 % RH … ±3 % RH
Dew point range: -3 °C … +94 °C





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Testing equipment and capabilities
Temperature and humidity tests

Climatic chamber, model **VCS³ 7034-5** ***(Vötsch Industrietechnik)***
Test space volume: 335 litres

Test space dimensions:
Height / width / depth: 750 mm / 580 mm / 765 mm

Specifications for temperature tests:
Maximum temperature: +180 °C
Minimum temperature: -72 °C
Cooling rate: 6.7 K/min
Heating rate: 7.0 K/min
Temperature deviation over time: ±0.1 K … ±0.5 K
Temperature homogeneity in space: ±0.5 K … ±2.0 K

Specifications for climatic tests:
Maximum temperature: +95 °C
Minimum temperature: +10 °C
Temperature deviation over time: ±0.1 K … ±0.3 K
Temperature homogeneity in space: ±0.5 K … ±1.0 K
Humidity range: 10 % RH … 98 % RH
Humidity deviation: ±1 % RH … ±3 % RH
Dew point range: -3 °C … +94 °C





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Testing equipment and capabilities
Temperature and humidity tests

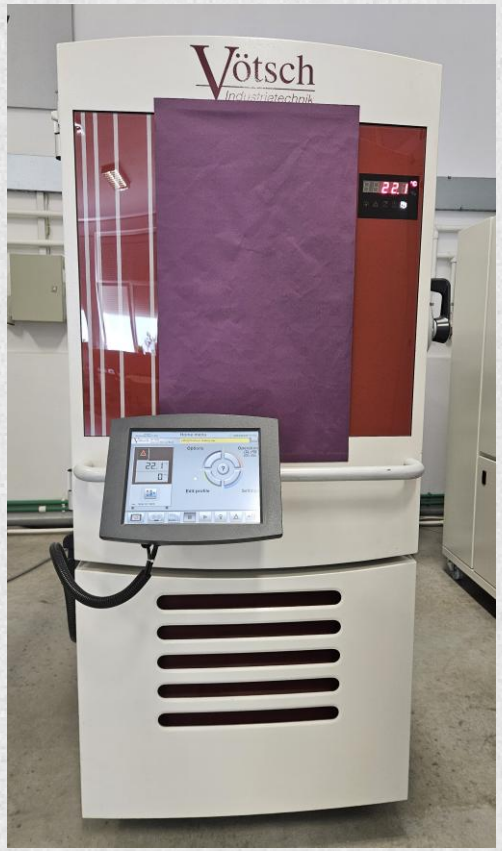
Climatic chamber, model **VC³ 7034** ***(Vötsch Industrietechnik)***
Test space volume: 335 litres

Test space dimensions:
Height / width / depth: 750 mm / 580 mm / 765 mm

Specifications for temperature tests:
Maximum temperature: +180 °C
Minimum temperature: -72 °C
Cooling rate: 3 K/min
Heating rate: 3 K/min
Temperature deviation over time: ±0.1 K … ±0.5 K
Temperature homogeneity in space: ±0.5 K … ±2.0 K

Specifications for climatic tests:
Maximum temperature: +95 °C
Minimum temperature: +10 °C
Temperature deviation over time: ±0.1 K … ±0.3 K
Temperature homogeneity in space: ±0.5 K … ±1.0 K
Humidity range: 10 % RH … 98 % RH
Humidity deviation: ±1 % RH … ±3 % RH
Dew point range: -3 °C … +94 °C





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Testing equipment and capabilities
Temperature and humidity tests

Climatic chamber, model **VC³ 0018** ***(Vötsch Industrietechnik)***
Test space volume: 190 litres

Test space dimensions:
Height / width / depth: 750 mm / 580 mm / 450 mm

Specifications for temperature tests:
Maximum temperature: +90 °C
Minimum temperature: -10 °C
Cooling rate: 0.3 K/min
Heating rate: 1 K/min
Temperature deviation over time: ±0.1 K … ±0.5 K
Temperature homogeneity in space: ±0.5 K … ±2.0 K

Specifications for climatic tests:
Maximum temperature: +90 °C
Minimum temperature: +10 °C
Temperature deviation over time: ±0.1 K … ±0.3 K
Temperature homogeneity in space: ±0.5 K … ±1.0 K
Humidity range: 10 % RH … 98 % RH
Humidity deviation: ±1 % RH … ±3 % RH
Dew point range: +4 °C … +89.5 °C





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Testing equipment and capabilities
Temperature tests

Temperature chamber, model **VT 7021** ***(Vötsch Industrietechnik)***
Test space volume: 210 litres

Test space dimensions:
Height / width / depth: 630 mm / 560 mm / 570 mm

Specifications for temperature tests:
Maximum temperature: +180 °C
Minimum temperature: -70 °C
Cooling rate: 2.5 K/min
Heating rate: 2.5 K/min
Temperature deviation over time: ±0.1 K … ±0.5 K
Temperature homogeneity in space: ±0.5 K … ±2.0 K





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Testing equipment and capabilities
Thermal shock tests

Thermal shock chamber, model **VT³ 7012 S2** ***(Vötsch Industrietechnik)***
Test space volume: 120 litres

Test space dimensions (transport basket):
Height / width / depth: 410 mm / 470 mm / 650 mm

Specifications for temperature tests:

Cold chamber:
Maximum temperature: +70 °C
Minimum temperature: -80 °C
Cooling rate: 6.3 K/min
Heating rate: 2 K/min
Temperature deviation over time: ±0.1 K … ±0.3 K
Temperature homogeneity in space: ±0.5 K … ±2.0 K

Hot chamber:
Maximum temperature: +220 °C
Minimum temperature: +50 °C
Heating rate: 14 K/min
Temperature deviation over time: ±0.1 K … ±0.3 K
Temperature homogeneity in space: ±0.5 K … ±2.0 K





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Testing equipment and capabilities
Temperature and vibration tests

Climatic chamber for the TIRA vibration system, model **VCV 7057/5/S** ***(Vötsch Industrietechnik)***
Test space volume: 570 litres

Test space dimensions:
Height / width / depth: 850 mm / 825 mm / 800 mm

Specifications for temperature tests:
Maximum temperature: +180 °C
Minimum temperature: -70 °C
Cooling rate: 5.0 K/min
Heating rate: 5.0 K/min
Temperature deviation over time: ±0.1 K … ±0.5 K
Temperature homogeneity in space: ±0.5 K … ±2.0 K

Specifications for climatic tests:
Maximum temperature: +90 °C
Minimum temperature: +10 °C
Temperature deviation over time: ±0.1 K … ±0.5 K
Temperature homogeneity in space: ±0.5 K … ±2.0 K
Humidity range: 10 % RH … 95 % RH
Humidity deviation: ±3 % RH





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Testing equipment and capabilities
Temperature and vibration tests

Vibration system, model **TV 59327AIT-440-3 TGT MO 24XL *(TIRA)***

Rated force sine / random / shock: 35000 N / 32000 N / 105000 N
Test frequency: 5 Hz … 3000 Hz
Main resonance frequency: > 2400 Hz
Maximum displacement: 76.3 mm pk-pk
Maximum velocity sine / random / shock: 2 m/s / 1.8 m/s / 3 m/s
Maximum acceleration sine / random / shock: 100 g / 67 g / 207 g

Vertical vibration table size: Φ 440 mm
Horizontal vibration table size: 650 mm x 650 mm

Maximum load: 610 kg

VR 9500 vibration controller *(Vibration Research)* with Sine, Random, Shock, SRTD and SoR
Medallion II vibration controller *(Vibration Research)* with Sine, Random, Shock and SRTD

Accelerometers for controlling and measuring vibration
PCB Piezotronics and Brüel & Kjær, with sensitivities of 10 mV/g and 100 mV/g.





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Testing equipment and capabilities
Salt mist tests

Salt mist chambers, models:

VSC 1000 (*Vötsch Industrietechnik*):
Test space volume: 950 litres
Test space dimensions:
Height / width / depth: 740 mm / 1660 mm / 570 mm
Working temperature:
5 °C above ambient … 50 °C

VSC/KWT 1000 (*Vötsch Industrietechnik*):
Test space volume: 950 litres
Test space dimensions:
Height / width / depth: 740 mm / 1660 mm / 570 mm
Working temperature:
5 °C above ambient … 50 °C
Condensation test: 35 °C … 40 °C

SC/KWT 500 *(Weiss Technik)*
Test space volume: 504 litres
Test space dimensions:
Height / width / depth: 700 mm / 875 mm / 645 mm
Working temperature:
5 °C above ambient … 50 °C
Condensation test: 35 °C … 40 °C









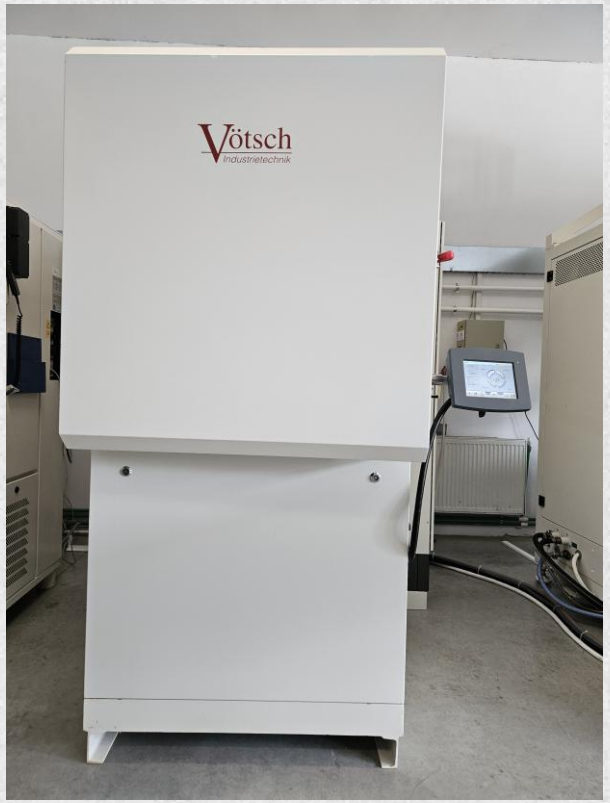
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Vacuum tests

Vacuum/temperature chamber
model **VKH 4030 (*Vötsch Industrietechnik*)**
Test space volume: 330 litres





Test space dimensions:
Height / width / depth: 740 mm / 640 mm / 750 mm
Temperature range: -40 °C … +100 °C
Temperature fluctuation: ±0.5 K … ±1 K
Cooling rate: approx. 0.5 K/min
Heating rate: approx. 0.5 K/min
Climatic range: 10 % RH … 95 % RH

Specifications for climatic tests:
Maximum temperature: +95 °C
Minimum temperature: +10 °C
Temperature deviation over time: ±0.5 K
Humidity range: 15 % RH … 95 % RH
Humidity accuracy: ±3 % RH … ±5 % RH
Dew point range: +4 °C … +90 °C
Pressure range: atmospheric pressure … 10 mbar abs.
Pressure stability: ±3 % of the set pressure
Pressure reduction rate (–): approx. 25 mbar/min (45 min down to 10 mbar)
Pressure increase rate (+): approx. 100 mbar/min

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Testing equipment and capabilities
Air/liquid thermal shock tests

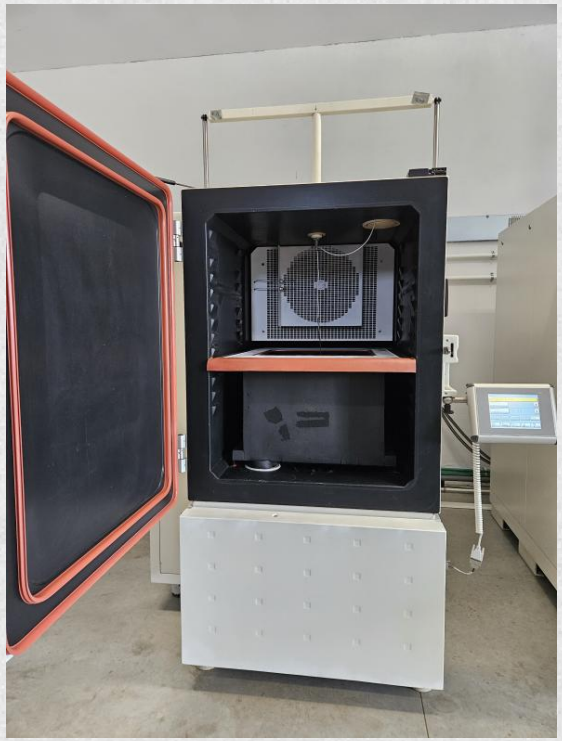
Air/liquid thermal shock chamber, model **VT 0006/S2/S (*Vötsch Industrietechnik*)**
Test space volume: 600 litres

Test space dimensions:
Height / width / depth: 1050 mm / 800 mm / 800 mm
Liquid bath dimensions:
Height / width / depth: 400 mm / 500 mm / 500 mm

Liquid temperature range (water with 5 % salt): 0 °C … 10 °C
Temperature deviation in the middle of the liquid bath: ±0.5 K

Air temperature range in the test chamber: 0 °C … 150 °C
Temperature deviation in the test space: ±0.5 K … ±2 K





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SR EN ISO/IEC 17025:2018 – Certificate

ASOCIAŢIA DE ACREDITARE DIN ROMÂNIA - RENAR

Bucureşti, Calea Vitan nr. 242, sector 3, cod 031301
CIF **RO 4311980**

RENAR este semnatar al EA-MLA pentru încercări

CERTIFICAT DE ACREDITARE
Nr. LI 1232

Asociaţia de Acreditare din România – RENAR, fiind recunoscută ca Organism Naţional de Acreditare prin OG 23/2009, prin prezentul certificat atestă că organizaţia:

ENVIRONMENTAL TESTING RÂȘNOV SRL

Râșnov, Str. Câmpului nr. 1, judeţul Braşov

prin

LABORATOR ÎNCERCĂRI DE MEDIU

îndeplineşte cerinţele **SR EN ISO/IEC 17025:2018** şi este competentă să efectueze activităţi de **ÎNCERCĂRI** aşa cum se detaliază în Anexa la prezentul certificat de acreditare.

Această acreditare este menţinută cu condiţia îndeplinirii în mod continuu a criteriilor de acreditare stabilite de Asociaţia de Acreditare din România - RENAR.

Prezentul certificat este însoţit de Anexa nr. 1/12.06.2025 (2 pagini), parte integrantă a acestuia.

Certificatul de acreditare este un document de acreditare esenţial, care poate fi revizuit şi emis periodic de către RENAR. Cea mai recentă versiune a certificatului de acreditare este disponibilă pe website-ul RENAR, www.renar.ro.

Data acreditării iniţiale: 15.07.2020
Data reînnoirii acreditării: 15.07.2024
Data actualizării: 12.06.2025
Data expirării acreditării: 14.07.2028

DIRECTOR GENERAL
Alina Elena TAINĂ

PREŞEDINTE AL CONSILIULUI DE ACREDITARE
dr. ing. Dumitru DINU

Certificatul de acreditare nu exonerează OEC de obligaţia de a obţine toate aprobările şi autorizaţiile necesare pentru funcţionarea sa conform legii.

Reproducerea parţială a prezentului certificat este interzisă.

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SR EN ISO/IEC 17025:2018 – Annex 1

Anexa nr. 1 la Certificatul de Acreditare nr. LI 1232
Data emiterii Anexei nr. 1: 12.06.2025

ENVIRONMENTAL TESTING RÂȘNOV SRL

prin **LABORATOR ÎNCERCĂRI DE MEDIU**

Râșnov, Str. Câmpului nr. 1, județul Brașov

A. Încercări efectuate în localuri permanente

Nr. crt.	Domeniul de activitate / Tehnica de lucru / Denumirea încercării	Material / produs / obiect supus încercării	Documentul de referință
(1)	(2)	(3)	(4)
	ÎNCERCĂRI DE MEDIU		
I	**Încercări climatice**		
1.	Încercarea la frig Încercarea Ab / (t_{min} = - 70 °C)	Componente sau module pasive care nu disipă căldura Vehicule rutiere – echipamente electronice și electrice	SR EN 60068-2-1:2007, pct. 5.2 și 6 IEC 60068-2-1:2007, pct. 5.2 și 6 PT – 01
2.	Încercarea la căldură uscată Încercarea Bb / (t_{max} = + 180 °C)	Componente sau module pasive care nu disipă căldura Vehicule rutiere – echipamente electronice și electrice	SR EN 60068-2-2:2008, pct. 5.2 și 6 IEC 60068-2-2:2007, pct. 5.2 și 6 PT – 02
3.	Încercarea la căldură umedă continuă Încercarea Cab / (umiditate relativă = max. 97 %)	Componente sau module pasive Vehicule rutiere – echipamente electronice și electrice	SR EN 60068-2-78:2013 IEC 60068-2-78:2013 PT – 03
4.	Încercarea la căldură umedă ciclică Încercarea Db / (ciclu: 12 h / 12 h) / (umiditate relativă = max. 97 %)	Componente sau module pasive Vehicule rutiere – echipamente electronice și electrice Ansambluri de aparatură de joasă tensiune Carcase destinate ansamblurilor de aparatură de joasă tensiune	SR EN 60068-2-30:2006 IEC 60068-2-30:2005 PT– 04
5.	Încercarea la variații de temperatură Încercările Na și Nb (t = - 70 °C / + 180 °C)	Componente sau module pasive Vehicule rutiere – echipamente electronice și electrice	SR EN 60068-2-14:2023, pct. 7 și 8 IEC 60068-2-14:2023, pct. 7 și 8 PT – 05
II	**Încercări la coroziune în atmosferă artificială**		
6.	Încercarea la ceață salină – Încercarea Ka	Componente sau module pasive Vehicule rutiere – echipamente electronice și electrice	SR EN 60068-2-11:2021 IEC 60068-2-11:2021 SR EN ISO 9227:2023, Test NSS pct. 5.2.2 PT – 06
III	**Încercări fizico-mecanice**		
7.	Încercarea la vibrații (sinusoidale) Încercarea Fc	Componente sau module pasive Vehicule rutiere - echipamente electronice și electrice	SR EN 60068-2-6:2008 IEC 60068-2-6:2007 PT – 07
8.	Încercarea la șocuri Încercarea Ea	Componente sau module pasive Vehicule rutiere - echipamente electronice și electrice	SR EN 60068-2-27:2009 IEC 60068-2-27:2008 PT – 08

RENAR

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SR EN ISO/IEC 17025:2018 – Annex 1

Anexa nr. 1 la Certificatul de Acreditare nr. LI 1232
Data emiterii Anexei nr. 1: 12.06.2025

Nr. crt.	Domeniul de activitate / Tehnica de lucru / Denumirea încercării	Material / produs / obiect supus încercării	Documentul de referință
9.	Încercarea la vibrații aleatorii de bandă largă Încercarea Fh	Componente sau module pasive Vehicule rutiere - echipamente electronice și electrice	SR EN 60068-2-64:2009 IEC 60068-2-64:2008 PT – 09

Sfârșit document

DIRECTOR GENERAL
Alina Elena TAINĂ

Asociația de Acreditare din România RENAR DIRECTOR GENERAL 2

RENAR

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