



# ENVIRONMENTAL SIMULATION AND OUTDOOR WEATHERING

TAILOR-MADE LIFE DESIGN FOR YOUR PRODUCTS

# OUR BENCHMARK: THE HUMAN BEING

**Developing, simulating, testing and analyzing for visions of the future.  
Our passion is mobility and sport.**

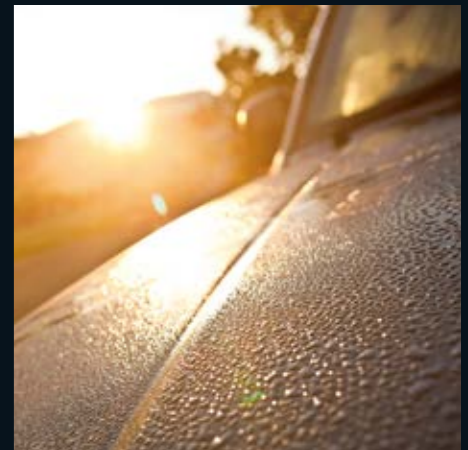
imat-uve, an expert in the field of engineering development, is a service provider with many years of experience in design, development, construction and testing of materials, components and systems. We support our customers along the process chain, from the first idea to the finished product or component part. Around 100 designers, chemists and engineers collaborate daily to find the best possible solutions for our customers. The focus is on the automobile industry and its suppliers, but also aviation, textile and building as well as the leisure industry.

## IDENTIFYING ENVIRONMENTAL INFLUENCES

**We put your materials and products to the test under extreme conditions.**

The sun not only causes the skin to age, but also everyday objects and appliances such as bicycles, sports equipment and vehicles. Further external factors, humidity and rapid temperature change also have their effects. Reliability, functionality and a defined service life must be ensured. Automotive construction therefore makes use of testing methods which simulate these changing, extreme environmental factors. imat-uve starts right at the development stage of materials and components. The development and design of the necessary, tailor-made service life of your products is in the focus of our services. The safeguarding and predictability of the service life reduce both risks and costs.

As provider of all kinds of environmental simulations and outdoor weathering, constant and alternating climatic tests, exposure to light, ageing and service life tests, imat-uve provides a wide range of testing and developing material, components and complete systems. imat-uve has been continually accredited to ISO 17025 (formerly DIN EN 45001) since 1994, and is a member of the GUS - Gesellschaft für Umweltsimulation (Association for Environmental Simulation). Intensive cooperation in various standardisation groups and committees keeps our know-how up to the state of the art and enables the continual further development of our testing methods.

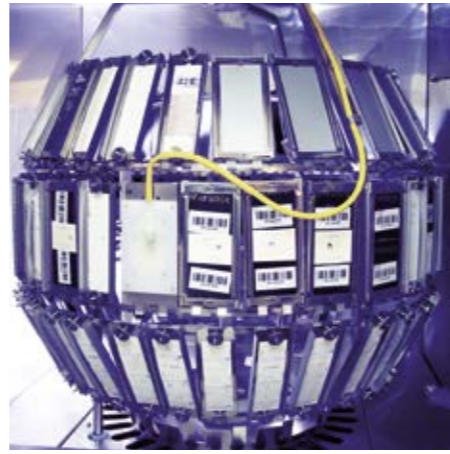






## TAILOR-MADE SERVICE LIFE

imat-ive benefits from many years of experience in the field of artificial and real ageing testing, both with environmental simulations and outdoor weathering tests. The confidence placed in our work by customers and automotive manufacturers has resulted in many approvals for environmental simulations. The latest approvals were issued by BMW for the sun simulation method BMW PR 306.4 for interior equipment, and by Porsche for the sun simulation method DIN 75220 as part of the Porsche specification PTL 8140. We are also one of the few service-providers to provide infrared irradiation for temperature resistance tests of components to the standards of Hyundai/Kia, Ford and Opel.



Our experienced team is made up of motivated, qualified engineers and technicians. Our customers include all well-known automotive manufacturers, system suppliers, parts and semi-finished product suppliers. Depending on the requirements and application, imat-ive offers test chambers and climate cabinets with volumes from 0.5 to 46 m<sup>3</sup> (large enough to take complete vehicles or test boxes containing several instrument panels, so-called "Snow White's coffins").



## OUTDOOR WEATHERING

We also carry out the weathering of vehicles and components under direct sunlight (indoor/outdoor), since the test methods in the chambers simulate only real conditions. At our outdoor weathering facility in South Africa, we can carry out testing both in dry-and-hot and humid-and-hot environments, and make the comparison between the real conditions and the artificial simulations in the chambers. Outdoor weathering is a costeffective means of confirming the simulated results by the values obtained from natural ageing (worst-case).



## OUR SERVICES

- VALIDATION CONCEPTS
- TAILOR-MADE SERVICE LIFE
- COSTS AND RISK REDUCTION
- MATERIAL SELECTION
- TESTING
- DESIGN
- SIMULATION



## TECHNICAL EQUIPMENT

### CONSTANT CLIMATE & CLIMATIC CHANGE TESTING

- Chambers from 0.5 to 46 m<sup>3</sup> test volume

### SUN SIMULATION

- with irradiation area for small components:
  - 0,6 m x 0,6 m
  - 0,7 m x 1,4 m
- with irradiation area for large components:
  - 2,0 m x 2,0 m
  - 2,2 m x 4,2 m

### INFRARED IRRADIATION

- 4 emitter units (complete bodywork)

### LIGHT EXPOSURE

- Light exposure procedure with Xenotest and Weatherometer to DIN EN ISO, ASTM, SAE and OEM standards



## APPROVAL / AUTHORISATION CERTIFICATION

IMAT UVE IS ACCREDITED ACCORDING TO DIN EN ISO / IEC 17025 AND ALSO HAS A FLEXIBLE ACCREDITATION IN THE FIELD OF ENVIRONMENTAL SIMULATION.

- Approved by Porsche for the sun simulation method DIN 75220 as part of the Porsche specification brochure PTL 8140 (for instrument panels, central consoles, whole vehicles)
- BMW approved for sun simulation method BMW PR 306.4 for interior fittings
- Further sun simulation tests, climate change and constant climate tests according to the requirements of other car manufacturers, such as infra red tests on structural components according to Ford-, GM-, KIA/Hyundai specifications
- imat-uve is a member of the GUS/Gesellschaft für Umweltsimulation (Association for Environment Simulation)
- GM/Opel (Vauxhall)-approved for material tests with focus on textiles
- Reference laboratory for tests on upholstery and carpets
- Member of the VDA working group for textiles
- Emissions testing according to VDA 278 for BMW, Daimler and GM
- Member of various DIN committees
- OEM-certified test site in South Africa
- Our clients: car manufacturers, system suppliers, suppliers of parts, suppliers of semi-finished products

Comprehensive one-stop services – that means reducing costs and time for our clients. We provide services that ensure easy processing of your projects. We would be pleased to work with you.



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Our services are certified according to DIN EN ISO 17025, ISO 9001 and VDA 6.2.

Read more: [www.imat-uve.com](http://www.imat-uve.com)

