



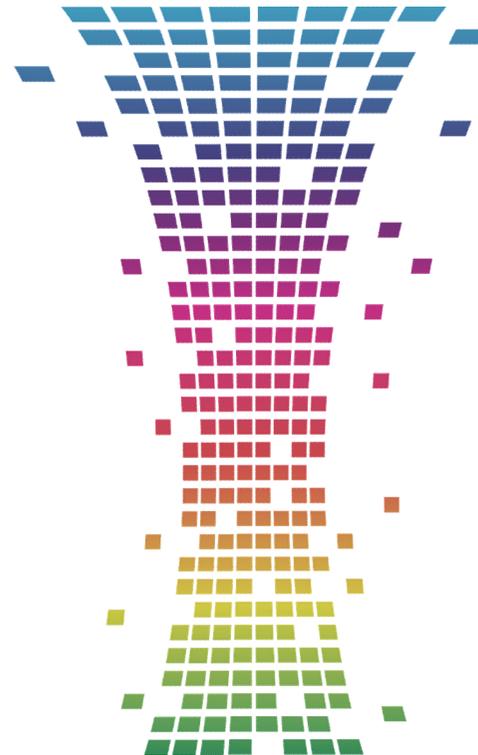
Plastilab

dal 2005

Laboratory testing, analysis,
research and training



PLASTIC
METALS
PAINTED MATERIALS
CHROME MATERIALS
RUBBER
FLUID DYNAMICS
VIBRATIONS
MECHANICAL WORKING
3D PRINTING



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MISSION

“AN ANALYSIS IS MUCH MORE THAN SIMPLE DATA”

Demonstrating the reliability of the components and materials used through laboratory analysis is a clear signal that the company intends to give to its customers.

Tests and research guarantee the certainty of its production, thus avoiding any problems with its customers.



HISTORY

► 2005

The PlastLab laboratory was born, thanks to funding from the Piedmont region. Its purpose was to provide services for the plastic and rubber sectors.

► 2008/2010

The PlastLab laboratory acquires **accreditation from the Piedmont Region as a training** body.

The PlastLab laboratory adds the painting and chrome plating sectors to its activities.

► 2013

The activities are implemented with the acquisition of new equipment specific to the **automotive sector (FCA, Audi, Volkswagen)** for complete qualification.

► 2014

The PlastLab laboratory becomes a private structure thus organizing its services offered at a sector level

► 2017

The PlastLab laboratory obtains **Accredia accreditation** as a Testing laboratory in compliance with **the UNI CEI EN ISO / IEC 17025** standard for a series of international tests

HISTORY

► **2020**

The PlastLab laboratory increases its activities by acquiring new instruments for carrying out tests in the **fluid-dynamic sector** (pulsating pressure, burst and circulation tests)

► **2022**

PlastLab laboratory expands its services by acquiring new equipment for performing **vibration tests** in controlled temperatures/humidities

► **2024**

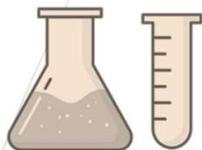
The PlastLab laboratory amplifies the control and **energy efficiency** of the equipment and implements their **remote control**

► **2025**

The PlastLab laboratory expands its business by acquiring the **mechanical working sector** serving testing and 3d printing. Plastlab is preparing to celebrate 20 years since its birth!

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SERVICES



Specific consultancy services for the choice of materials



Execution of tests and measurements according to international and/or company standards



Support for gaps in reference standards in defining tests and specifications



Training and seminars in the field of materials/processes



Study of critical issues and causes of non-compliance



Scouting meetings with companies to define qualification plans

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ACCREDITATION

ACCREDIA

Testing laboratory no. 01291 accredited in compliance with the standard:

UNI CEI EN ISO/IEC 17025:2018



DL01291/004



Membro degli Accordi di Muto Riconoscimento EA, IAF e ILAC
Signatory of EA, IAF and ILAC Mutual Recognition Agreements



Certificato di Accreditamento *Accreditation Certificate*

Accreditamento n.
Accreditation n.

01291 Testing REV. 04

Emesso da
issued by

Dipartimento Laboratori di Prova

Si dichiara che
We declare that

Plastlab Scarl

Sede/Headquarters:

- Via dell'Artigianato 2 - zona industriale Malosnà - 10043 Orbassano TO

LABORATORY

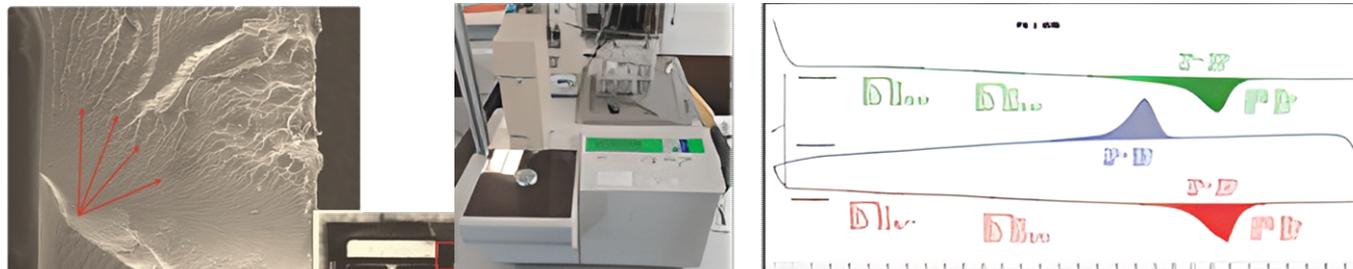
- ▶ **The Plastlab Laboratory** offers testing services on plastic, rubber, painted and metal materials and components for fluid-dynamic and vibrational tests.
- ▶ It operates mainly in the *automotive, aerospace, packaging, white goods and railway sectors* and is always oriented towards new job opportunities such as the *recycled materials sector*.
- ▶ Specifically, **the laboratory is able to perform** material, mechanical, rheological and thermal characterization tests, as well as accelerated aging tests and flammability tests. Expanding its tests to fluid-dynamic tests, such as: circulation, pulsating pressure and burst/tightness and vibration tests.
- ▶ **The technicians are at your complete disposal**, following the project from the request to the final report.

LABORATORY

MATERIALS CHARACTERIZATION

- Transmission Infrared Spectroscopy ATR
- Differential Scanning Calorimetry (DSC)
- Thermogravimetric Analysis (TGA)
- Optical Microscope Analysis
- Scanning Electron Microscope (SEM) Analysis

Material characterization is an integral part of the laboratory activity, to respond to requests for identification of the polymer matrix or comparisons between printed components and virgin material.



LABORATORY

PHYSICAL TESTS - MECHANICAL, THERMAL AND RHEOLOGICAL

- Dynamometric tests
- Determination of the resilience of plastic materials (Izod-Charpy methods)
- Determination of the resilience of plastic materials (Izod-Charpy methods)
- Determination of hardness
- Determination of residual deformation after compression
- Determination of density
- Fluency Index(MFI)
- Brittless Point E TR Test
- Thermal tests VICAT/HDT



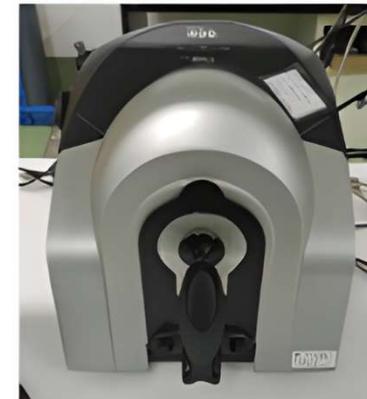
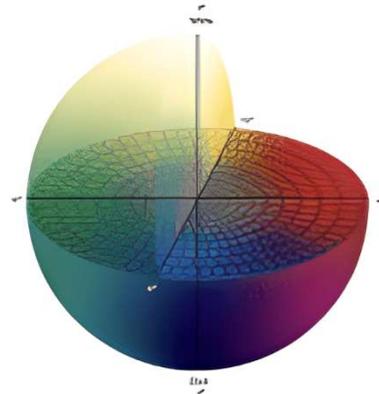
These sectors are important for evaluating the behaviour of materials when subjected to external stresses; and in some of them they are intrinsic to the material itself.

LABORATORY

AGING TESTS

- Accelerated Aging Xenotest
- Accelerated UV Aging
- Color and gloss evaluation test

Aging tests are designed to rapidly simulate what could potentially happen in nature. The Plastlab laboratory is able to perform accelerated Xenotest and UV ray aging, to simulate aging in sunlight and atmospheric agents.



LABORATORY

CORROSION AND CONDENSATIONS TESTS

- Condensation test
- Salt spray test

Tests capable of simulating in an accelerated manner a corrosive effect given by a saline environment, therefore salt spray, or in the presence of very high percentages of humidity, i.e. condensation tests; essentially performed on metals or painted with metallic substrates. It is also possible to test plastic components with metal inserts



LABORATORY

ENVIRONMENTAL TESTING

- Aging in a hot – humid – cold environment
- Resistance to thermal cycles
- Ozone aging
- Aging in liquids
- Aging in water

Tests performed in environments with particular temperature or humidity conditions in a static manner or simulation of sudden or cyclical changes in temperature and/or humidity. It is also possible to simulate effects due to ozone and perform immersion tests in regulated liquids or water.



LABORATORY

FLAMMABILITY TESTS

- UL94 flammability tests, burning at 45°C angle
- Horizontal flammability tests according to FMVSS 302, UNI ISO 3795, GB8410, R118 Annex 6, STELLANTIS LP.7M079, PSA PEUGEUT-D45 1333, FCA PF.7-G2000
- Determination of melting behaviour of materials R118 Annex 7
- Vertical flammability tests R118 Annex 8
- Determination of the ability to repel fuels or lubricants R118 Annex 9
- R118 Annex 10 cable combustion tests

Flammability tests are useful for evaluating the burning speed of the material and assessing the possible self-extinguishing of a component.

The laboratory is accredited to perform tests according to STELLANTIS LP.7M079, PSA PEUGEUT-D45 1333, FMVSS 302, ISO 3795, GB8410, FCA PF.7-G2000 and R118 Annex 6, 7, 8, 9, 10.

LABORATORY

FLUID-DYNAMICS TESTS

- Burst and leak tests
- Pulse pressure tests
- Circulation tests

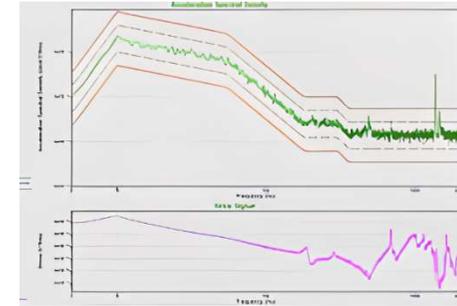
Tests performed with the aim of evaluating the behavior and functional characteristics of pipes or components inside which a fluid passes. These evaluations can be performed through Burst and Tightness, Pulsating Pressure and Circulation tests, applying different pressures and temperatures based on the test and the operation of the component.



LABORATORY

VIBRATION TESTS

- Sine Vibration Profiles
- Random Vibration Profiles
- Shock Vibration Profiles
- Temperature Test



The tests aim to simulate, under controlled conditions, the vibrating load applied to the device under test (D.U.T.) according to reference 'standards' in order to evaluate its performance in the various phases of its development.



LABORATORY

SECTORAL TESTS

- Adhesion tests on painted surfaces Prove di tensofessurazione
- Wear resistance and scratch resistance
- Thickness micrographic method
- Coulometric method thickness
- Stone-Chipping
- Resistance to chemical agents
- Fogging e VOC
- Control of dimensional variations
- Pressure washer simulation
- Determination of the degree of cross-linking of polyethylene

Tests generally required in automotive specifications; they are particular tests that simulate or specifically evaluate different aspects of the plastic or painted components of the sector.

LABORATORY

PREPARATION OF SPECIMENS

Plastlab is able to provide sample preparation services or to perform internal tests. It has the ability to injection mold type 1A “dog-bone” samples for tensile tests, dynamometric bending bars, plates of dimensions (200 x 100) mm and (560 x 170) mm, as well as compression molding plates (200 x 200) mm for thermoplastics or thermosets.

The laboratory is also able to cut samples for mechanical tests starting directly from the component, using a saw or computerized milling. It also has “dog-bone” shaped dies and trouser tear samples, both large and small, for tests on elastomers

MECHANICAL WORKING AND 3D PRINTING

The Plastlab has the possibility, through the study of the regulations requested by the customer, to prepare the required tooling independently and therefore provide this service in addition to the execution of the tests.



Specifically, the Plastlab is able to:

- Study the complete equipment required by the test standard, based on the laboratory instruments where it will be used;
 - Design it starting from the drawing or adapting the requirements of the standard;
 - Build fixtures for vibration tests or equipment for other tests (for example dynamometer tests), through mechanical machining or 3D printing.
 - Possible fine-tuning of the equipment in order to verify compliance with the test methodology, with the machines present in the laboratory
 - Perform the test according to the methods requested by the customer
- The company currently has a parallel lathe, a visualized milling machine and a vertical machining center with three controlled axes from HURCO.

FORMATION

“HAVING TRAINED STAFF IS AN ADVANTAGE FOR ANY COMPANY”

Plastlab is not only a laboratory but also a training center, as it has **an accreditation from the Piedmont Region for professional training (certificate no. 911/001 of 27/11/2008)**.

Training courses, workshops, meetings, seminars and technical conferences are carried out, with the aim of implementing the knowledge of the personnel of the requesting companies.

Thanks to the accreditation, our courses can be included in company training projects linked to the Interprofessional Funds, as it is possible to finance the training activity.



**Plastic, Rubber, Metal,
Paint, Laboratory, Quality area**

NEWS in real time

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011/9034652



Street dell'Artigianato 2

10043 Orbassano (Turin) ITALY



info@plastlab.it



www.plastlab.it