

CTCV

Entity / laboratory framework: CTCV is an Entity of the Scientific and Technological System, certified by CERTIF according to NP EN ISO 9001 and with laboratories accredited by IPAC according to the norm NP EN ISO / IEC 17025, for the performance of analysis and tests. It is also a Sectorial Standardization Body recognized by the IPQ, with an active participation in National, European (CEN) and International (ISO) Standardization Technical Commissions.

It is composed of a multidisciplinary team with solid scientific and technical skills in different areas of knowledge, which are the result of its 30 years of accumulated experience and specialized training.

With a R&D culture oriented towards results and value for industry, it offers its business partners a set of integrated solutions ranging from specialized consulting and auditing, professional training, measurement and testing and RTD solutions. The services of CTCV are oriented towards the Ceramics and Glass and the whole cluster of habitat.

The CTCV's performance is essentially based on the partnership it develops with clients, other entities of the Scientific and Technological System and Sectorial and Regional Associations, as well as rigor and credibility, allied to the strong innovation and technology transfer component.

List of available services for the natural stone industry

Innovation and collaborative R&D in the area of Materials, Products and Processes

Industry support in the materialization of industry 4.0

Building Information Modeling (BIM) Project Development

Product Engineering and Design

Material Analysis and Testing of Natural Stone and Reconstructed Stone Products

Monitoring of Environmental Parameters and Occupational Safety and Hygiene

Industrial, Environmental and Quarry Licensing Processes (Environmental Performance Plan - PDA and Annual Environmental Report - RAA), Legal Compliance Assessment

Environmental Impact Studies, Product Life Cycle Assessment (LCA), Environmental Responsibility, Environmental Product Declarations (DAP), Eco-Innovation and Circular Economy

Implementation of Management Systems, CE Marking and Auditing

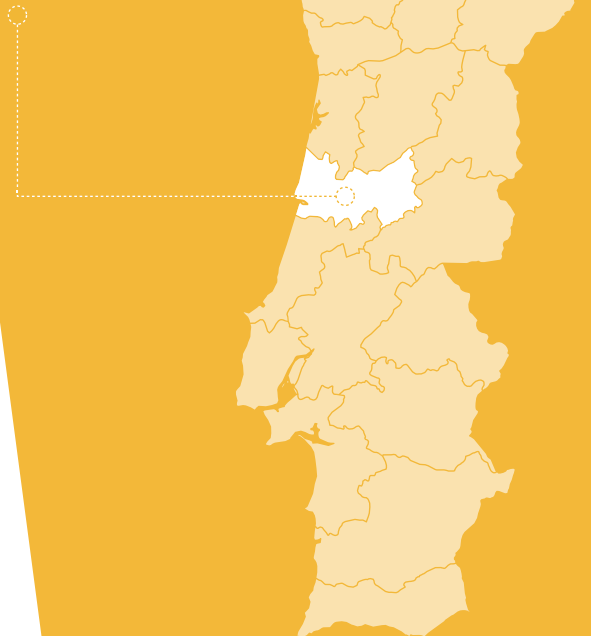
Process Improvement and Efficiency

Continuing Training

Coimbra

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List of available tests on natural stone






European Tests		Reference Standard
Water Absorption at Atmospheric Pressure		EN 13755
Flexural Strength Under Concentrated Load (With and Without Frost Resistance)		EN 12372
Flexural Strength Under Constant Moment		EN 13161
Uniaxial Compressive Strength (With and Without Frost Resistance)		EN 1926
Slip Resistance by Means of The Pendulum Tester		EN 14231
Abrasion Resistance		EN 14157 – Method A
Dimensional Tests		EN 1333
Breaking Load At Dowel Hole		EN 13364
Water Absorption Coefficient by Capillarity		EN 1925
Real Density and Apparent Density, and of Total and Open Porosity		EN 1936
Rupture Energy		EN 14158
Frost Resistance		EN 12371
Appearance		EN 1341/1342/1343
Petrographic Examination		EN 12407
Resistance to Ageing by Thermal Shock		EN 14066
Resistance to Salt Crystallization		EN 12370
Sound Speed Propagation		EN 14579
Chemical Quantitative Analysis		PE CTCV
Mineralogic Identification by X-Ray Diffraction		PE CTCV

Accredited tests

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ASTM Tests		Reference Standard
Absorption and Bulk Specific Gravity of Dimension Stone		ASTM C97/C97M-15
Compressive Strength of Dimension Stone		ASTM C170/C170M-17
Flexural Strength of Dimension Stone		ASTM C880/C880M-15
Modulus of Rupture of Dimension Stone		ASTMC99/C99M-15
Abrasion Resistance of Dimension Stone Subjected to Foot Traffic Using a Rotary Platform Abraser		ASTM C1353

 **Accredited tests**

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