

**ESTUDIO ANALÍTICO DE LAS NORMAS EUROPEAS Y
AMERICANAS EN EL CONTROL DE CALIDAD DE LA FABRICACION
DE FIBRAS DE CARBONO**
ANALYTICAL STUDY OF EUROPEAN AND AMERICAN STANDARDS
IN THE QUALITY CONTROL OF THE MANUFACTURE OF FIBER
REINFORCES POLYMER

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Building quality control is today one of the key points of construction in Spain. As regards the manufacture of construction products or other products and manufacturing systems, the regulation in this aspect of quality control is much greater. In the present study, a normative analysis of the different phases of development of carbon fibers was carried out, from manufacturing to commissioning. Among different regulations regarding quality control in the manufacture of carbon fibers (FRP) for buildings, we refer to the American standard CNR-DT 200 R1 / 2012, regarding the different manufacturing processes of carbon fibers, being of three types: By poltrusión, by systems of lamination or by humid accumulation [1].

Also in this same standard, reference is made to the quality control in the installation of carbon fiber, since it emphasizes the importance of the preparation of the surface where it is going to be applied, since they are systems externally attached to the support or functional element. In this same manufacturing process, the UNE EN 14889-2: 2006 Standard establishes minimum control requirements in the product resulting from this manufacture, establishing a production control system in the factory, which must consist of procedures, regular inspections, tests and / or evaluations and the use of test results to control raw materials, equipment, and the product [2].

Finally, the implementation of the carbon fibers has as a premise the preparation of the support, since adhesion to the support is essential for the proper functioning of the system, as well as establishing acceptance criteria of the support, atmospheric conditions, resin preparation and in-situ testing [3].

REFERENCES

[1] CNR-DT 200 R1/2012: “Guide for the Design and Construction of Externally Bonded FRP Systems for Strengthening Existing Structures”

[2] Norma Europea EN 14889-2:2006 “Fibras para hormigón. Parte 2: Fibras poliméricas. Definiciones, especificaciones y conformidad”

[3] J. Baquer, J. Falguera, J.E. Herrero, G.A. Ortín, P. Piñeiro, J. Pugibet, M. Sanil, “La fibra de carbono en refuerzo de estructuras de hormigón” Monográfico del Institut d’Estudis Estructurals N°1, ISBN 978-84-616-9241-5, Publicación: 9 Mayo 2014