



## COMPLIANCE WITH EUROPEAN REGULATIONS FOR SUPPORTING STRUCTURES ON PADEL COURTS (SCENIC III AND IRONCORE III)

This report is made in accordance with international standards detailed below continuation:

- Eurocode 1 (EN 1991): Actions in structures.
- Eurocode 2 (EN 1992): Design of concrete structures.
- Eurocode 3 (EN 1993): Design of steel structures.

The analysis of the stresses on the structure is carried out by means of a 3D spatial calculation, by stiffness matrix methods, forming all the elements that define the structure: corner columns, glass side columns, mesh columns, upper and lower beams of glass, mesh support uprights, lamppost post, running foundation shoes, ...

The software used in this technical report is the following:

- CYPECAD, of the brand CYPE INGENIEROS, S. A. Version: 2019.i.
- Hilti PROFIS Engineering 3.0.55, from the HILTI brand.

The main variable action that will act on the structure of the Padel court will be the WIND. The violent action (dynamic) of the punctual collision of a Padel player against one of the glasses or one of the electro welded meshes could also be considered. However, since the action of the WIND (with the maximum intensity of calculation) will not be considered concomitant with the normal development of this game and since the action of the WIND is greater than that of the possible impact against a glass or a mesh of a player, will proceed not to consider the action of a possible impact of a player, either against a glass or against a mesh.

Since it is impossible to cover the entire casuistry of all countries, Maintaining one commercial economic criteria for the sale of future padel courts, in this report a value agreed with the promoter (29.5m/s) will be adopted, which will cover a large part of the European territory. If in any of the countries where this model of padel court is installed, if in the area in question it had a fundamental value of basic speed greater than 29.5m/s, this report could be of no value. It will be something to be considered by the competent Administration in charge of granting the necessary permission for the assembly of the structure of the padel court.

Regarding the TERRAIN, given that it is impossible to cover the entire casuistry of all countries, in this report a category of the terrain agreed with the developer will be adopted. If the installation of a future runway occurs in a country and a location with a more unfavorable terrain category than the one considered, this report may be of no value. It will be something to be considered by the competent Administration in charge of granting the necessary permission for the assembly of the structure of the padel court. Specifically, in this supporting technical report, terrain category II of the Netherlands has been considered, which yields the following terrain parameters:

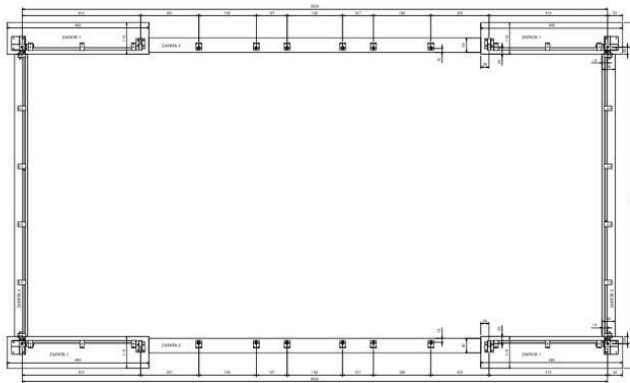
$z_{max} = 200m.$   
 $z_0 = 0.20m.$   
 $z_{min} = 4.0m.$

In countries where they have adopted the Eurocode terrain categories, the above values (corresponding to category II for the Netherlands) would cover categories III and IV.

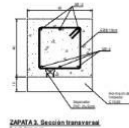
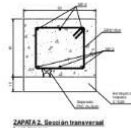
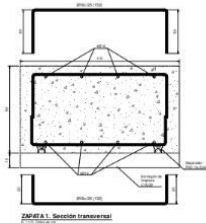
In other countries, such as France, it would cover categories IIIa, IIIb and IV.

The following terrain parameters have been considered:

- Land without heterogeneous fillings below the support level of the foundation.
- Land suitable for a shallow foundation.
- Land with a bearing capacity of 1.50Kp / cm<sup>2</sup> (147KN / m<sup>2</sup>).
- Competent terrain at the support level of the foundation, without the need to make any previous improvement of the terrain.



PLANTA DE PLACAS BASES DE PILARES Y ORIENTACIÓN SUPERFICIAL TIPO PARA UN TIPO DE TERRENO EN CLASIFICACIÓN IIIa



DATOS DEL PROYECTO: ZAPATA		REVISIÓN
<b>REQUISITOS EN ZAPATA DE FUNDACIÓN ARMADA</b>		
<b>DEFINICIÓN DE ELEMENTOS</b>		
Elemento	Descripción	Resistencia (MPa)
Concreto	Concreto tipo	30
Acero	Acero tipo	500
<b>NOTAS</b>		
1) Se detallan en el plano de las zapatas de fundación por tipo de terreno IIIa.		
2) Se detallan en el plano de las zapatas de fundación por tipo de terreno IIIb.		
3) Se detallan en el plano de las zapatas de fundación por tipo de terreno IV.		
<b>CANTIDAD DE CEMENTACIÓN Y ESPECIFICACIONES TÉCNICAS Y SOLUCIONES</b>		
Elemento	Descripción	Resistencia (MPa)
<b>REQUISITOS BÁSICOS DE DISEÑO DE ZAPATA</b>		
1) Se detallan en el plano de las zapatas de fundación por tipo de terreno IIIa.		
2) Se detallan en el plano de las zapatas de fundación por tipo de terreno IIIb.		
3) Se detallan en el plano de las zapatas de fundación por tipo de terreno IV.		
<b>LEYENDA DE ELEMENTOS DE CIMENTACIÓN</b>		
• TODAS LAS ZAPATAS QUE NO ESTÉN ESPECÍFICAMENTE ACORDADAS EN EL PLANO DEBEN ENTENDERSE CON EL D.E. DE LAS PLACAS.		
• EL RESTO DE LAS ZAPATAS ESTÁN ACORDADAS EN EL PLANO CON LOS REQUISITOS BÁSICOS DE CIMENTACIÓN.		