SUMMARY

In the context of the constructive process of works of concrete, the projection of the material on a surface to high speed constitutes a very interesting technology from a productive point of view, since it's includes two stages of the process (placement and compactación) in an alone action. This, joined the extraordinary flexibility that presents, has allowed that numerous technical personnel should be praised by this particular technology of putting in work in certain situations.

In the general exposed frame, the present thesis centres, principally, on the study of different facets associated with the control and with the execution of works using.

In the chapter 1, there have been defined the general frame and the principal aimsthat are chased in this work, as well as the methodological aspects used for such ends purposes.

In the chapter 2, one presents the condition of knowledge to near the control of materials, procedures of dosing, manufacture and putting in work associated with this technology.

In the chapter 3, and once exposed the bases for the execution of a projected concrete, approach all the aspects that refer to the Procedure it joins that they regulate the use of the concrete projected in Spain.

The obtaining of the resistance to the simple compression is the principal test-essay for the control of execution of a projected concrete. This paragraph realizes a wide description of the different types and testing methods depending on the age of the concrete for the obtaining of the same one. Hereby, we lay the foundations legal that we arrange to do a correct control of the same one.

In the chapter 4, one presents the study of a practical real case of a work in tunnel in the FGC in Pallejá town, in which there is described of detailed form the study of alternatives and the constructive procedure that carries to adopt the concrete projected as constructive solution to the raised problematics.

In the chapter 5, the practical application is established to the soterramiento of the FGC in Pallejá town of everything analyzed in the chapters 2 and 3 from a bibliographical point of view regarding the quality control of the materials, methodology of dosing, control of tests-essays, tests-essays, etc.

Finally, in the chapter 6 there are exposed the conclusions extracted from the accomplishment of the different works, a last point being attached by the bibliography indexed in the text and other publications consulted during the course of this Thesis.