

**UNIVERSITY OF CYPRUS TECHNICAL INSTITUTE
CIVIL ENGINEERING DEPARTMENT**

DIPLOMA PROJECT

ROAD BITUMENS IN CYPRUS

by

CHRISTODOULOU IOANNIS

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by

Christodoulou Ioannis

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SUMMARY

The purpose of this project is the investigation of bitumens and especially for bitumens used in road construction.

Bitumen is used every day by millions of people throughout the world, from the ancient time until our technological society, due to its adhesive and water proofing qualities and properties.

It is basic, though, for the engineer to acquire the physical properties and types of the bitumen, because the full responsibility is always taken by him, as far as concern the design of works which include bitumens.

The physical properties, origin and types that an Engineer must acquire and are included in this project with many others are generally the following:

1. Natural bitumens
 - Lake Asphalt
 - Rock Asphalt
2. Refinery bitumens
 - Penetration Grade Bitumens
 - Liquid Bitumens
 - Cutback
 - Emulsions
3. Tests and properties of bitumens.

INTRODUCTION

This project deals with the investigation of bitumens and especially road bitumens in Cyprus.

Beginning with the history of bitumen use, its manufacture, types and grades are explained, followed by a comprehensive section on testing of the properties and the influence of the mechanical properties of bituminous mixes in practice.

A separate chapter is devoted to the investigation of types, grades, origin and tests of the bitumens used in Cyprus.