

VISVESVARAYA TECHNOLOGICAL UNIVERSITY
"JNANASANGAMA", BELGAUM - 590018.



2013-2014

Project Report
on

**"RECYCLED PLASTICS USED AS COARSE AGGREGATE FOR
CONSTRUCTIONAL CONCRETE"**

Submitted in partial fulfillment for the award of degree
'BACHELOR OF ENGINEERING'
IN

CIVIL ENGINEERING

Submitted By

Ms. ASHARANLK.M	(1JB10CV007)
Mr. DHIRAJ KATARI.V.C	(1JB10CV014)
Ms. SAHANA.R	(1JB10CV037)
Mr. PRUTHVISAGAR.D.S	(1JB11CV403)

UNDER THE GUIDANCE OF

Mr. Ramesh R L
Associate Professor



DEPARTMENT OF CIVIL ENGINEERING
S. J. B INSTITUTE OF TECHNOLOGY
B G S HEALTH AND EDUCATION CITY,
Kengeri, Bangalore-560060.

Sponsored by



KARNATAKA STATE COUNCIL FOR SCIENCE AND TECHNOLOGY

INDIAN INSTITUTE OF SCIENCE, BANGALORE - 560012
Telephone: 080 - 2334 1652, 2334 8848, 2334 8849. Telefax: 2334 8840

Contents

CHAPTER 1	1
INTRODUCTION.....	1
1.1. GENERAL.....	1
1.2. PLASTICS	2
1.3. PLASTIC WASTE DISPOSAL.....	3
1.4. PLASTIC RECYCLING	4
1.5. RECYCLED PLASTIC PRODUCTS.....	7
1.7. ADVANTAGES AND DISADVANTAGES OF USING PLASTICS	8
1.8. NEED FOR FURTHER WORK.....	9
CHAPTER 2	10
LITERATURE REVIEW	10
2.1. FRESH CONCRETE PROPERTIES.....	10
2.2. DENSITY OF CONCRETE	12
2.3. UNIT WEIGHT.....	13
2.4. HARDENED CONCRETE PROPERTIES.....	13
2.5 OTHER PROPERTIES OF CONCRETE	16
CHAPTER 3	17
METHODOLOGY	17
3.1. GENERAL.....	17
3.2. MATERIALS USED.....	17
3.3 MIXTURE PROPORTIONING	22
3.4 CASTING AND CURING	22
3.5. TESTS CONDUCTED.....	23
CHAPTER 4	24
RESULTS AND CONCLUSIONS.....	24
4.1. GENERAL.....	24
4.2. DRY DENSITY	24
4.3. COMPRESSIVE STRENGTH	26
CHAPTER 5	30
CONCLUSION AND SCOPE OF FURTHER STUDY	30
5.1.GENERAL.....	30
5.2.CONCLUSIONS	30
REFERENCES.....	32