CHAPTER - 5

COMPARISON AND ANALYSIS OF RESULTS

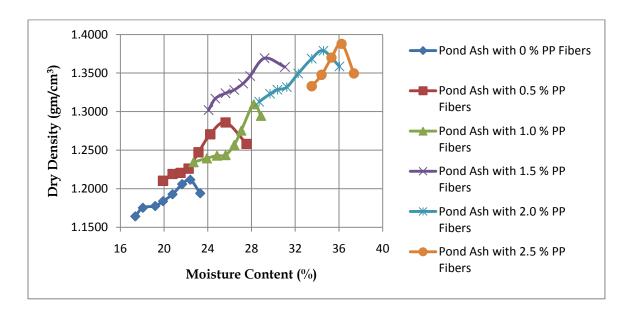


Fig. 26 - Comparative plot of Standard Proctor Test results

The plot of standard proctor test results is shown in figure 25. The results indicate that OMC and MDD both undergo increment as the fiber content is increased. A more stable behavior is observed in pond ash with the addition of fibers in pond ash.

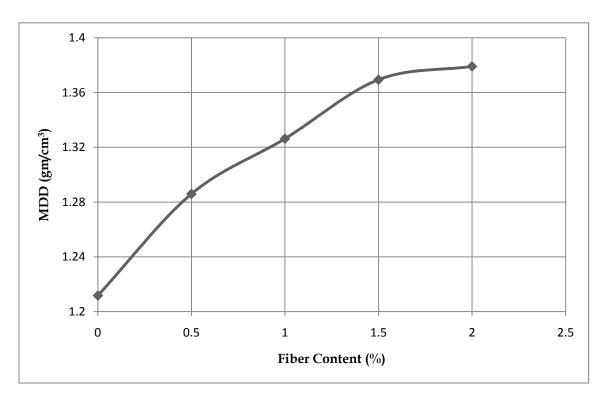


Fig. 27 - Variation of MDD with fiber content

The variation of MDD with increase in fiber content is shown in figure 26. With the increase in polypropylene fibers the MDD is found to increase.

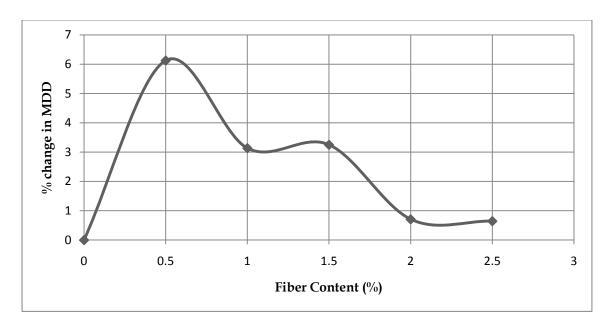


Fig. 28 - Variation of % change in MDD with fiber content

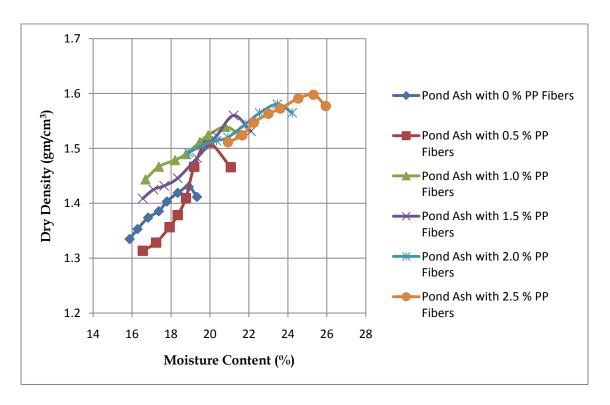


Fig. 29 - Comparative plot of Modified Proctor Test results

The comparative plot of moisture content versus dry density under heavy compaction at various amounts of polypropylene fibers is shown in figure 28. The plot shows same trend as in case of light compaction with a difference that the curves shift towards the left and the peaks are higher than those in light compaction as is expected.

Comparison and Analysis of Results

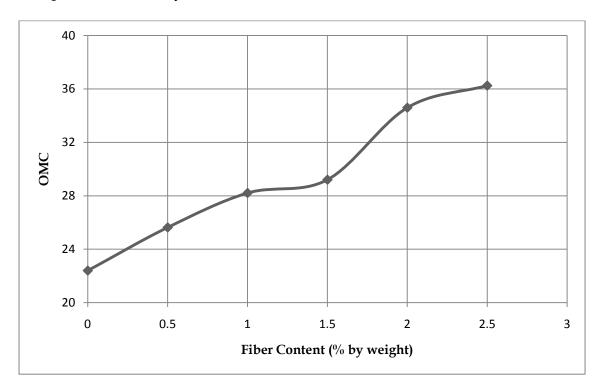


Fig. 30 - Variation of OMC with fiber content

The variation of OMC with fiber content is illustrated in figure 29. It is readily observed that OMC has an increasing trend with increase in fiber content.

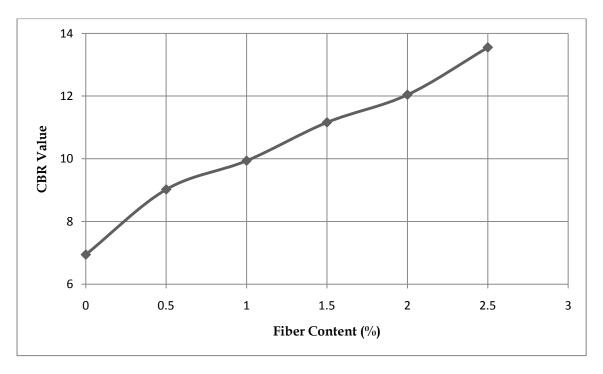


Fig. 31 - Variation of soaked CBR with fiber content

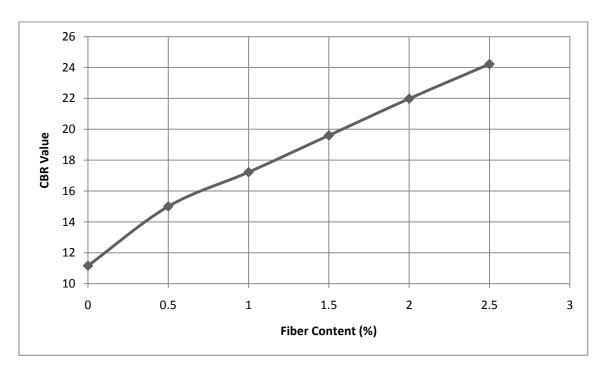


Fig. 32 - Variation of unsoaked CBR with fiber content

The variations of CBR values with fiber content are illustrated by figures 30 and 31. The CBR values increase as the fiber content is increased, in both cases, i.e., soaked and unsoaked. Also, it is observed that CBR value is less in soaked cases against those in unsoaked cases. It is also observed that increase in CBR value is more in unsoaked case than in soaked case. Since, CBR value is directly related to the thickness of the pavement required it simply means that as fiber content is increased the thickness of pavement required must decrease for a particular value of traffic in msa. This raises the expectation of cutting in overall construction cost of flexible pavement as thickness of pavement is reduced. This aspect will be discussed elaborately in next chapter.