

APPLICATION OF WASTE TYRE RUBBER IN CONSTRUCTION INDUSTRY

JAGMEET SINGH¹ & JASPAL SINGH²

¹Department of Civil Engineering, Punjab Agricultural University, Ludhiana, Punjab, India

²Department of Civil Engineering, Punjab Agricultural University, Ludhiana, Punjab, India

ABSTRACT

About 80 million tyres are part of 33 million vehicles manufactured in India. The disposal of these discarded tires is a major environmental concern worldwide. The waste tyres rubber is not easily biodegradable even after long-period of landfill treatment. The landfilling of waste tyre creates soil and water pollution, because the waste tyre rubber holds toxic and soluble components. Burning of tyres results in serious fire hazards and tire stockpiles also provide a breeding habitat for various pests. Therefore it is necessary to find out the alternative for consumption or disposal of the discarded rubber tyres. Waste tyre rubber has great potential in construction industry related applications. This waste utilization would not only be economical, but may also help protecting the environment. At the same time, the use of waste tyres rubber as a substitute for natural aggregates in concrete and asphalt mixtures represents a great advantage from the point of view of conservation of natural resources. Although waste tyre rubber provides one of the environmental friendly and economically viable products but still there is lack of awareness among the society that waste tyre rubber can be converted into a valuable product.

KEYWORDS: Asphalt Mixture, Concrete, Precast Concrete, Waste Tyre Rubber