

Plastic recycled in roads: feasibility study on the use of plastic waste for road paving in Iceland.

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This presentation gives the economic, technical and environmental case for testing waste-plastic-modified hot mix asphalt concrete in Iceland. Studies and practical testing of the adding of diverse fractions of waste plastic to hot aggregate as part-replacement for bitumen binder have shown an improvement of most of the desirable properties of road strength and resilience. Domestic sources of plastic and mixing technologies are already ready for large-scale implementation of this additive, but a few issues need further data, particularly regarding studded-tyre wear resistance, skid resistance, and any differences between the environmental effects of dust containing plastic waste as opposed to regular virgin plastic additives and bitumen. If used at scale, the technology may significantly extend the life of road surfaces and help solve the economic and environmental issue of unrecyclable plastic waste.