COLD RECYCLING OF RECLAIMED ASPHALT: ANALYSIS OF ALTERNATIVE PROCEDURES

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ABSTRACT
Nowadays, the adoption of cold asphalt mixtures instead of traditional hot mix asphalts is gaining interest in view of the growing social and political awareness about environmental issues, which asks for low-energy and low-emission technologies. The environmental sustainability of cold mixtures is further enhanced when recycled aggregates, such as reclaimed asphalt (RA), are used. Given this background, the present paper presents the preliminary results of a wider research program aimed at evaluating mechanical and durability properties of different cold asphalt mixtures prepared with a selected RA. In particular, indirect tensile strength and stiffness as well as moisture susceptibility of cold recycled mixtures prepared with bituminous emulsion or foamed bitumen are discussed, taking also into account different curing conditions. Results clearly show that high-performance materials can be obtained through the appropriate cold recycling of selected RA, even if differences can be detected due to different bituminous binders and/or curing conditions.