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CRT Tile – Utilization of waste glass from cathode ray tubes

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Reducing environmental impact is attempted through developing a new technology for utilizing waste Cathode Ray Tube (CRT) glass in the production of tiles. The implementation of the technology may considerably reduce the quantity of CRT waste, which today is piling up as a result of the transition to flat screen computer monitors and televisions. The purpose of the on-going project CRT Tile is to develop a new product - glass tiles manufactured exclusively from waste raw material. The research purpose of this project is to develop the process parameters in order to obtain a new product having physical and chemical parameters similar to conventional ceramic tiles. In the project realization, the cross-disciplinary team is selecting the conditions for glass material milling and controlling this process flow with the use of laser diffraction, while the examination of process parameters in pilot-plant scale, are conducted at the Institute of Ceramics and Building Materials, Department of Decoration Agents in Warsaw. Life cycle assessment (LCA) is conducted by Western Norway Research Institute in order to reduce the environmental impact, and determine the environmental improvements inherent in this new technology.

Biography

Otto Andersen has completed his PhD on Industrial Ecology at Aalborg University. He is a researcher at Western Norway Research Institute, a leading environmental research organization. He has published more than 100 publications and is serving as an Editorial Board Member of multiple scientific journals.

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