

PROJECT SUMMARY

Title of Project: Innovative Products from Recycling of Waste Glass including Cathode Ray Tube (CRT) glass	
Local Company: B.E.M Enterprises Limited	
Main Collaborating Institution: University of Mauritius	
Project Leader: Mr Thierry MALABAR	
Research Collaborator(s)	
Name	Organisation
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Technical Abstract	
<p>Due to rapid developments in technology, there is a continuous replacement of Cathode Ray Tube (CRT) monitors by LCD screen. However, with little handling alternatives, discarded CRTs derived from computer monitors and televisions are frequently sent to landfills, which pose a threat to human health as the funnel base of the CRT contains lead oxides (PBO), which is considered as a dangerous element. Predictions also indicate that post-consumer glass waste will also increase in the future and same will end up in the landfills. With the help of the University of Mauritius (UoM), BEM Enterprises, which is a specialised company in the E-Waste management, wants to put in place a proper institutional and infrastructural framework with effective innovations for a proper recycling and valorisation of those glasses. This study aims therefore to compare the feasibility of using CRT recycled glass and post-consumer glass as fine aggregates in mortar for the manufacture of glass foams and tiles. Potential lead leaching will thus be investigated and methods developed to reduce the lead content so that the recycled product have a value added and innovative materials for the Mauritian market.</p>	
Key Words: Cathode Ray Tube (CRT), Glass, E-Waste, Recycling, Valorisation, Fine aggregates, Value added, Environment	