

Engineering students make floor tiles with SUPs



‘Antistatic, antibacterial and antimicrobial’ - are words that describe the innovative floor tiles created by students of Rayat Bahra University in Mohali district of Punjab. The tiles were created using single use plastics (SUPs) or plastic waste.

Sahil, Ritvik, Shubham and Vikas, final year students of Mechanical Engineering of the University located in Sahauran village area of District SAS Nagar, are keen to make their campus SUP free.

The move is in keeping with the PM’s call to the nation to achieve a plastic waste free India, given that plastic pollution is among the most pressing environmental issues; effecting water bodies, wildlife and human health.

SUPs, also often referred to as disposable plastics (use-and-throw items), are commonly used for plastic packaging and include items intended to be used only once, before they are thrown away or recycled. These products include plastic carry bags, plastic cutlery including plates, plastic cups, straws, etc., and cutlery and other decorative items made from Styrofoam (Thermocol).

The antibacterial tiles were made as a part of a major project by final year students of Mechanical Engineering.

Project guide and Head of Department, Mechanical Engineering (Rayat Bahra University, Mohali), Prof. Abhinav A. Tripathi had informed the team that the idea behind the project was to make the university free of SUPs. Hence the students collected plastic waste for nearly a month before beginning work.



According to the team members the tiles are antistatic, antibacterial and antimicrobial, which means, that they are fungus resistant and static charge defusing; capable of bearing load capacity of 3.5 tonnes. Further, they can sustain temperatures up to 110 degrees centigrade and show no deformation in shape or weight when immersed in water for two days. In the event of any damage, the tiles can be reused for manufacture again.

Importantly, the tiles are cheaper than cement flooring tiles because only plastic waste is used to manufacture them. Among the items used were shampoo bottles, milk pouches, broken mugs, and non-carbonated drink bottles.

The initiative will be piloted in nearby villages, according to Mr. Sarbjit Singh, Sub Divisional Engineer (Sanitation), Department of Water Supply and Sanitation, Punjab.