



TEAM:

- Emre ÖZCAN
ozcnemre@outlook.com
0534 924 1025
- Abdullah ŞAHİN
abdullahsahin132@gmail.com
0554 463 3669
- İsa ÖZSOY
0541 835 3375
samlfstr@gmail.com

This is the process by which waste from laminated glass is separated from polyvinyl butyral, which is the main ingredient.

The recycling of laminated glass is made by no company in Turkey therefore approximately 14,000 tons of laminated glass waste is produced each year. This waste due to lack of recycling technology is either discarded or buried in some area. Since PVB film is a polymer-based product it is carcinogenic and in the waste zone this product the surrounding ecosystem is degraded and some plant species under threat. What constitutes for the municipalities a serious problem which must be settled as quickly as possible. The companies that make use of this product are therefore obliged to discard them, and the municipalities that make regular checks give them an amount that reaches 8000 tl.

Within the scope of our project, we designed a machine in which the mechanical and chemical processes were performed together and the separation of the glass and the plastic between them was carried out and the analysis of the separated plastic was made in the university.

Polyvinyl Butyral (PVB) is a thermoplastic polymer material that can be recycled and converted into different forms. For this reason, PVB is used as raw material in many sectors such as construction, automotive, chemical and energy. There are 24.000 m² film requests per day in terms of the automotive industry in our country. This corresponds to a market volume of about \$ 43 million per year.