## **Incombustible Wood Foam**

Alhoot, Shahad Alzarooni, Ayesha Alhashimi, Mira

Since our prospect of tomorrow is intended to be both efficient and eco-friendly, our thermal-insulation materials should be so too. It is common knowledge that the construction industry uses hardboards or expandable plastic foams, which are based on petrochemical plastics. But they are not exactly eco-friendly, so we contemplated a way to make expandable foam made of wood (which is an entirely natural product). Wood, however, is a flammable substance; therefore we shall manufacture a way to make this foam less ignitable. This wood foam is a good insulator that is also recyclable. Wood foam can be used in exactly the same way as conventional plastic spray forms, but is an entirely organic product made from sustainable raw materials. The wood we will use to make the wood foam are wood shavings and other kinds of wood wastes. Therefore, we are using the renewable source –wood-in the most efficient way possible.