

TECHNOLOGY AND BUSINESS OPPORTUNITY OF BIODEGRADABLE PLASTICS IN CHINA

Usman Khan Niazi

Kcomber Inc, China

As of 2015, there were mainly six types of biodegradable plastics being produced in China, namely polylactic acid (PLA), polybutylene succinate (PBS), polyhydroxyalkanoates (PHA), starch-based materials, polypropylene carbonate (PPC) and polycaprolactone (PCL). Currently in China, these biodegradable plastics are mainly applied in packing materials, agricultural film, and 3D printing. The increasing demand from these fields has become a main force driving the development of the Chinese biomaterial industry. For example, in 2015, due to the prohibition of disposable plastic bags in Jilin Province, there was a greater demand for biodegradable packing materials, and in response, many Chinese producers had increased their capacity of PLA. At present, the major factor that hinders the development of biodegradable plastics in China is the high price, the average of which is 2-5 times as much as general-purpose plastics. For example, although starched-based material is the cheapest amongst the six biodegradable plastics, it's more expensive than polyethylene (PE), a kind of general-purpose plastic.

SMART EMERGING TECHNOLOGY TO DEVELOPMENT CURTAINS AND UPHOLSTERY FOR THEATERS AND HOSPITALITY

Elsayed Ahmed Elnashar

Kafrelsheikh University, Egypt

Smart emerging technology of self-cleaning concept has achieved surprising interest because of their components and extensive variety of conceivable applications in different fields such as curtains and upholstery for theaters and hospitality. A superhydrophobic surface with roll off angle less than 10° is called self-cleaning. Because the rolling water droplet takes away all the dust and dirt particles with it and leaves the surface very clean. These self-cleaning surfaces have numerous applications in diverse fields like textiles as curtains and upholstery for theaters and hospitality, and applications requiring anti-fouling and a reduction of drag in fluid flow. In micro/nanochannels. The methods towards integration of more than one functional property into one fabric were carried out by functionalizing cotton fabric with silver particles which was subsequently modified with octyltriethoxysilane to make it hydrophobic. Various attempts have been made to develop biologically self-cleaning textiles by using some of above mentioned techniques for bacterial growth prevention.



Note: