

Impact of European Norms Euro 6 on Usage of Polymeric and Composite Products in Automotive Industry with the Purpose of Reducing Pollution

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This study presents the evolution of the European Norms of depollution and their environment impact. Therefore, starting Euro 1 Norms (1992), the European Commission defines and regulates the exhaust emissions of the vehicles produced and sold in the European Union. From 2014 until the end of 2020, car producers are under the regulations of the Euro 6/VI Directives. These regulations had a great impact on the process of vehicles engineering design as they influence the materials used during the manufacturing process such as metals, additives or plastic and polymeric composites. One key role in the development of less polluting vehicles is the usage of polymeric composites. Thanks to these materials, cars are now lighter, therefore they consume less fuel and they produce less pollution, and also they present an increased level of comfort and safety. One main target of the Euro 6 regulation is to popularize electrical, hybrid or hydrogen cars. Plastic and polymeric composites such as polyacetal, polyphenylene ether or other engineering resins are a key part of the evolution of car industry. This article is intended to summarize how using polymers on different car components impacts the quality of air.