Using glass waste as a substitute for sand and stone in the asphalt mixture

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Abstract:

Research into recycling glass products has become an urgent matter due to the large accumulated quantities of glass waste. Glass waste is often not alone, due to the inclusion of glass in many electronic devices, cars, homes and other areas that need to isolate the glass first and then transport it to recycling factories. Likewise, we do not find There is a great interest among scavengers in glass due to the presence of other materials that are more useful when sold, such as metals such as copper, iron, and aluminum, or materials that are easier to collect, such as plastic materials. Therefore, we find that the glass recycling industry in many Arab countries is not widespread to the extent that other materials recycling industries are widespread. The development that we have witnessed in recent times has increased human consumption very significantly, to the point that it is no longer limited to purchasing when needed only, which has increased the demand for land resources used as raw materials in industries tremendously, exceeding the safe consumption of them, which ultimately leads to their depletion, and the increase in consumption leads to There is a very large accumulation of waste of all kinds, which ultimately leads to disruption of the environmental system. The need arose to search for new sources that can be used as raw materials. One of the most important methods that led to the provision of these raw materials is recycling. Recycling is a method that has been resorted to recently. The latter is to reduce the accumulated solid waste of glass waste so that it is sorted into several groups consisting of materials similar in origin, and then these materials are recycled again for use in architectural beautification and epoxy flooring, and from here came the research problem: The research problem is the need to provide information that will benefit researchers regarding the importance of recycling glass waste and utilizing it as an alternative to aggregate and aggregate in the asphalt mixture and using it in paving roads.

The goal of the research is to get rid of glass waste and recycle it for use in paving roads and covering the floors of interior architecture in new urban communities.

Research hypothesis: The research hypothesis is achieved in determining the technological considerations for recycling solid glass waste and utilizing it in paving roads.

Keywords:

Glass waste, tooth and stone, road paving

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