

Plastic sustainable future reply

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In the October 2008 issue of ICR, Lafarge Cement UK argues, via a commissioned study, that plastic packaging of cement has lower environmental impact and costs than paper packaging. We applaud Lafarge for raising the issue, and would be delighted to have an open discussion about the life-cycle environmental impacts of different packaging alternatives. But such a discussion is meaningful only if data sources, assumptions and calculation methods are clearly presented and available for third party analysis.



It is an accepted fact within the cement industry that the modern paper sack has superior functionality, productivity and cost effectiveness. High-porous strong paper sacks without perforation holes enable producers of powdered goods to reduce the amount of paper per sack required, achieve high filling speeds and eliminate dusting and product waste. But not only are paper sacks excellent in functional respects – they also act as an actual carbon sink in that they draw their renewable raw materials from the ever growing reserve of European long fibre forests.

We are led to believe that the Lafarge study makes invalid assumptions regarding the levels of wastage when using paper bags for cement packaging,

as well as the importance of landfill in the disposal of paper bags. Besides, it is not clear from the article whether the study is based on cement or other building materials, and what packing alternatives and bag designs are compared.

According to the study, environmental impact is caused mainly by product wastage due to damaged bags. Plastic bags are supposed to break less often than paper bags, making them better for the environment. Note that the study does not claim plastic to be a superior material as such compared to paper, from an environmental perspective.

Allegedly, cement waste is 11 per cent in paper packaging and four per cent in plastic packaging. This substantial difference contradicts Billerud's studies,

which show actual breakage levels of 1-2 per cent in the filling and transport chain from a regular cement plant. Except breakage, wastage can be caused by pre-hydration – cement reacting with moisture and thereby changing its properties. This is obviously subject to the storage and climate conditions as well as the packaging and the cement composition, factors which all affect the shelf life of the cement. Billerud's expert sources maintain that the turnover time for cement is too short for pre-hydration to lead to wastage of the suggested proportions.

Realistically, what cement supplier or customer could sustain cement losses of around 10 per cent on a regular basis? We would be very surprised, if not out of

