

Consumers Attitude toward the Latest Trends in Decreasing Energy Consumption of Washing Machine

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Abstract : Reducing water temperatures in the wash phase of a washing programme and increasing the overall cycle durations are the latest trends in decreasing energy consumption of washing programmes. Since the implementation of the new energy efficiency classes in 2010, manufacturers seem to apply the aforementioned washing strategy with lower temperatures combined with longer programme durations extensively to realise energy-savings needed to meet the requirements of the highest energy efficiency class possible. A semi-representative on-line survey in eleven European countries (Czech Republic, Finland, France, Germany, Hungary, Italy, Poland, Romania, Spain, Sweden and the United Kingdom) was conducted by Bonn University in 2015 to shed light on consumer opinion and behaviour regarding the effects of the lower washing temperature and longer cycle duration in laundry washing on consumers' acceptance of the programme. The risk of the long wash cycle is that consumers might not use the energy efficient Standard programmes and will think of this option as inconvenient and therefore switch to shorter, but more energy consuming programmes. Furthermore, washing in a lower temperature may lead to the problem of cross-contamination. Washing behaviour of over 5,000 households was studied in this survey to provide support and guidance for manufacturers and policy designers. Qualified households were chosen following a predefined quota: -Involvement in laundry washing: substantial, -Distribution of gender: more than 50 % female , -Selected age groups: -20-39 years, -40-59 years, -60-74 years, -Household size: 1, 2, 3, 4 and more than 4 people. Furthermore, Eurostat data for each country were used to calculate the population distribution in the respective age class and household size as quotas for the consumer survey distribution in each country. Before starting the analyses, the validity of each dataset was controlled with the aid of control questions. After excluding the outlier data, the number of the panel diminished from 5,100 to 4,843. The primary outcome of the study is European consumers are willing to save water and energy in a laundry washing but reluctant to use long programme cycles since they don't believe that the long cycles could be energy-saving. However, the results of our survey don't confirm that there is a relation between frequency of using Standard cotton (Eco) or Energy-saving programmes and the duration of the programmes. It might be explained by the fact that the majority of washing programmes used by consumers do not take so long, perhaps consumers just choose some additional time reduction option when selecting those programmes and this finding might be changed if the Energy-saving programmes take longer. Therefore, it may be assumed that introducing the programme duration as a new measure on a revised energy label would strongly influence the consumer at the point of sale. Furthermore, results of the survey confirm that consumers are more willing to use lower temperature programmes in order to save energy than accepting longer programme cycles and majority of them accept deviation from the nominal temperature of the programme as long as the results are good.

Keywords : duration, energy-saving, standard programmes, washing temperature

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