Research Paper | Asian Journal of Home Science | December, 2011 | Volume 6 Issue 2 :107-111

Market potential of developed consumer products of bonded material using plastic wastes

MEENU SRIVASTAVA AND RAJESHWARI BHATI

See end of the paper for authors' affiliations

Correspondence to:

MEENU SRIVASTAVA
Department of Textile and Apparel Designing, College of Home Science
Maharana Pratap University of Agriculture and Technology, UDAIPUR (RAJASTHAN) INDIA
menuclt@yahoo.com

ABSTRACT

One of the biggest challenges with plastic waste is that it is extremely hard to dispose of and persist in the environment for longer period. While the problem of plastics disposal has to be recognized and accepted globally, India's particular situation could be worsened by its poor drainage infrastructure in the cities, and fewer resources to spare for post disaster rectification. The study was carried out at Udaipur city of Rajasthan on Development of Bonded fabric using plastic waste for developing consumer products and assessment of their market potential. Finding of the study revealed that developed bonded fabrics of 200-300 GSM was suitable for the development of those consumer products requiring more thickness, stiffness and bursting strength. On the other hand, the developed bonded fabrics of 100-200 GSM was found more suitable for developing consumer products of general use on account of less stiffness and other related properties. Majority of the respondents appreciated developed value added consumer products. Thus, it can be concluded that the developed value added consumer products by the use of polythene bags for developing bonded fabrics were found highly acceptable in terms of acceptability and further this will also be helpful in reducing the environmental pollution in a fruitful manner.

KEY WORDS : Bonded fabric, Plastic waste, Products, Market potential

How to cite this paper: Srivastava, Meenu and Bhati, Rajeshwari (2011). Market potential of developed consumer products of bonded material using plastic wastes . *Asian J. Home Sci.,* **6** (2) : 107-111.

Article chronicle: Received: *26.04.2011*; **Revised:** *04.08.2011*; **Accepted:** *08.10.2011*

The environment on earth is a highly sensitive eco-system, which is being disturbed by disposal of numerous non-biodegradable man-made objects causing long lasting harm and damage. One such man-made material is plastic. Polyethylene is one of the most popular packing materials in recent times. It is used for the majority of bags- whether shopping bags or bin liners, and is a non-biodegradable substance, which contains harmful chemicals. Because of its vast use in packing items, 80 million metric tones of polyethylene are produced every year.

Plastic bags are widely used because they are easy to carry, cheaper to make, stronger and have longer life. Unfortunately, these useful qualities of plastic bags create huge pollution problem. Being inexpensive, the plastic bags are easily discarded in the environment but its persistence in the environment does great harm. Urbanization has added to the plastic pollution in concentrated form in cities. Plastic thrown on land can enter into drainage lines and chokes them resulting into floods in local areas in cities as experienced in Mumbai, India in the year 1998. Over 50 per cent of all plastic produced in India is used for packaging. Most of this is discarded once used - and in a country where traditionally waste is largely unknown, this has caused a massive environmental problem.

Looking into the above facts, it was felt the need to carry out the present research on development of bonded fabric using waste polythene to developed consumer products and assessment of its market ponntatial

RESEARCH METHODS

Three different types of waste polythenes were selected and twelve different types of cotton rags comprising of three each from saris, kameez/rajputi dress, curtains and bed sheets for use as upper layer fabric depending on the easy availability and suitability. Similarly, for backing material, required in thermal bonding technique, six different types of cotton materials were selected in the form of old cotton saris, curtains and bed sheets. All the selected materials to be used as upper and lining fabrics along with three different type of polythene sheets of different GSM were used in several combinations to develop bonded fabrics.

RESEARCH FINDINGS AND DISCUSSION

The time and temperature required for bonding fabrics of different GSM was carefully observed.