

Production of Handmade Papers from Waste Sugarcane Bagasse

Divya Bipin Peke¹ and Patil Jayashree Shailesh²

Research Scholar(M.Sc II), Department of Chemistry, J.S.M. College, Alibag, Raigad¹

Assistant Professor, Department of Chemistry, J.S.M. College, Alibag, Raigad²

divyapeke@gmail.com and jayupatil25@gmail.com

Abstract: Solid waste is one of the biggest problem of civil society. In this project, agriculture waste from bagasse and banana fibers have been used to produce handmade paper. These fibers were collected, dried under the sun and passed through water vat to remove dust. A Next, it is cooked with 10% caustic solution in pressure cooker and then blended in mixer for different timing. Diluted solution of Clorox was used for discoloration and purification of pulp.

Three types of papers were made from ready pulp. First type was by made by using raw material only, second type by addition of 2% of CaCO₃ and 2% of starch. And the third types by addition of 5% of both additives. These papers were dried and then ironed for straightening.

GSM, pH, Thickness, Bulk, and Moisture Content were calculated for all types of papers. It was found that papers from bagasse fibers are heavy and suitable for heavy and rough usage. While paper from banana fibers are useful for soft usage like tissues, wipes, tracing paper etc. This project is ecofriendly as it used agricultural waste and only little electricity was used.

Keywords: waste sugarcane bagasse, NaOH, Pulp refinement.

