

UV protection properties of cotton *Khadi* fabric using *Eucalyptus globulus* dye extract

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■ **ABSTRACT :** This research has been taken up to develop eco-friendly *Khadi* fabric having UV protective action meanwhile concerned with the extraction of dye using *Eucalyptus globulus* dye at various dyeing concentrations. Optimal results were achieved by dyeing at 90°C-100°C for 90 minutes using the pre-mordanting method with different mordants i.e. *Punica granatum*, *Phyllanthus emblica*, *Terminalia bellirica* and *Acacia catechu*. The evaluation of dyed samples in terms of ultraviolet radiation (UPF) and colour fastness to washing, rubbing and sunlight was done. The results of colour fastness to washing and rubbing showed good to very good and colour fastness to light showed good to moderate results. The data, which is obtained, showed that the mordanted samples have high dye uptake with excellent UPF values.

■ **KEY WORDS:** Natural mordants, Dye, Ultraviolet protection factor, *Khadi* fabric, Colour fastness

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