

Discussion: Principles of the recovery and reuse of corporate clothing

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1. Contribution by R. N. Dul

As an 'insignia' supplier of long standing, this contributor read with interest the paper by Russell *et al.* (2010), and in particular Section 8 concerning existing methods of insignia attachment to corporate clothing and personal protective equipment (PPE), which are listed as

- (a) sublimation transfer printing
- (b) screenprinting
- (c) machine embroidery
- (d) sewing of pre-formed embroidered labels.

While these are certainly methods used in the sector, the list omits the following types of insignia, which probably account for in excess of 60% of such items attached to corporate clothing/workwear in the UK

- (a) transfers comprising screenprinted images backed with a hot-melt adhesive (and applied by the application of heat and pressure)
- (b) printed (by screenprint or digital means) patch emblems backed with a hot-melt adhesive
- (c) embroidered patch emblems backed with a hot-melt adhesive
- (d) other forms of heat-applied emblems.

All of these items (a) to (d) are to some extent removable either by heat-stripping or with the use of an appropriate removal solvent.

Both direct screenprinting and sublimation transfer printing are far more widely used in the promotional clothing field where, this contributor suggests, extended use of the garments would be more acceptable, maybe even preferable to the brand owner.

2. Authors' reply

The authors appreciate the comments of Mr Dul on their paper concerned with the rapid removal of insignia from corporate wear and fully acknowledge the industrial importance of heat-applied insignia, particularly in the related area of workwear. As indicated, the central focus of the paper is corporate wear, where embroidery, sewn-on badges and tax tabs are the most frequently encountered attachments. In the workwear sector, heat-applied insignia are commonly utilised. In both workwear and corporate wear cost-effective removal of attached insignia involving limited manual intervention and negligible contamination or damage to the underlying fabric continues to be a challenge.

REFERENCE

Russell SJ, Morley N, Tipper MJ, Drivas I and Ward GD (2010) Principles of the recovery and reuse of corporate clothing. *Proceedings of the Institution of Civil Engineers – Waste and Resource Management* **163**(4): 165–172.