TCS Textile Consultancy Services

• Textile Problem Analysis • Textile Labelling Advice • Education and Training

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TITLE

THE POLYURETHANCE COATING ON THE INSIDE OF THIS JACKET HAS FAILED FOLLOWING A DRY CLEANING TREATMENT THAT IS FULLY COMPLIANT WITH THE REQUIREMENTS OF THE ATTACHED CARE LABELLING

Report prepared by

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ENQUIRY

The client submitted a man's cream coloured polyester/polyurethane jacket for examination and report. The purpose of the enquiry was to comment on the most likely cause of the severe problems associated with the coating on the inside of the outer shell fabric, which have become apparent after recent dry cleaning.

The client reported that the jacket was dry cleaned in in-line refrigerated perchlorethylene charged with a proprietary soap product, using a very short cleaning cycle in a process that was intended to comply with the more restrictive requirements of the underlined, circled P dry cleaning symbol - Ⓟ - on the care labelling and no separate stain removal procedures were used on the garment.

LABELLING

- **Fibre Content Labelling**: 68% polyester/32% polyurethane, lining - 100% cotton
- **Care Labelling**: By Both International Care Labelling Symbols and Written English Phrases - Do Not Wash, Do Not Bleach, Do Not Tumble Dry, Cool Iron, Dry Cleanable Ⓟ
- **Size Labelling**: Nil

EXAMINATION

The structure of the cream outer shell fabric was examined by looking inside the seam allowance of the jacket's lower hem and it was found to consist of a cotton fabric which had been coated on its inside with a layer of white polyurethane. The jacket was examined on the outside under standard white lighting conditions and it was immediately apparent that numerous areas of blotchy blue and some light brown staining had developed in many of the

panels of its cream outer shell fabric. In addition, there was significant evidence of blistering, bubbling and puckering of the outer shell fabric, particularly along the lower hem of the jacket and on the inside of both the button and buttonhole panels.

PHOTOGRAPHS

Photograph 1.
Burberry Cream Jacket

Photograph 2.
Blistering Inside the Right Front

Photograph 3.
Blistering Above the Hem Area

Photograph 4.
Fabric Discolouration Due to the Coating Failure

DISCUSSION

The main problems exhibited by this garment – the development of random blue and brown areas of staining throughout its outer shell fabric panels and extensive blistering and puckering of the outer shell fabric – strongly indicate that the coating on the inside of the outer shell fabric has become very adversely affected by its contact with perchlorethylene solvent in the course of the short dry cleaning treatment that was reported to have been used. The coating has partially dissolved in the perchlorethylene solvent to cause these problems.

However, the garment's care labelling only allows one method of care which is dry cleaning in perchlorethylene with specified process restrictions, and it is therefore effectively 'Dry Clean Only Ⓟ'. However, the polyurethane coated cotton fabric has obviously failed to perform appropriately to a dry cleaning treatment in perchlorethylene that, as reported, complies fully with the care labelling requirements.

When fabrics exhibit such major performance failures to care labelling specified care treatments, the responsibility lies with the manufacturer. Manufacturers are required by the Australian textile labelling system to ensure that any fabrics and their coatings that are used in their garments, are able to withstand each of the care treatments specified on the garment's attached care labelling. This has clearly not occurred in the case of this jacket.

These problems are seen regularly and attached to this report are copies of two technical bulletins, TABS 215 'Loss of Coating' and TABS 281 'Blisters on Coats', prepared by the International Fabricare Institute (I.F.I.) in the U.S., which provide further information and explanation of the causes and responsibilities of these coated fabric problems. The dry cleaner is clearly not responsible for causing these problems.

CONCLUSIONS

The problems of this jacket have been caused by a strongly adverse reaction between perchlorethylene solvent and the outer shell fabric's inner polyurethane coating. However, dry cleaning in perchlorethylene, with specified process restrictions, is the only method of care specified on the garment's care labelling and the dry cleaner has reported that the dry cleaning process used complied fully with these requirements.

Therefore, on the basis of all the available evidence, the manufacturer must accept responsibility for what has occurred with polyurethane coating in this jacket. The polyurethane coating appears to be unstable to even short exposures to perchlorethylene dry cleaning solvent. The garment should therefore be returned to the original point of purchase, along with a copy of this report, so that the customer can obtain appropriate redress for his loss.

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CERTIFICATE

I, Steven Donald Pyott, do hereby certify that to the best of my knowledge and belief, the above information is accurate. Being an Associate of the Textile Institute, I have agreed to be bound by the terms of the Institute's Royal Charters, By-laws and Professional Code of Conduct for the time being in force. The Textile Institute accepts no responsibility for the information contained in this reply to your enquiry.

Steven Pyott