

TCS Textile Consultancy Services

Steven Pyott

TWO LONDON FOG BLACK ZIPPERED POLYESTER JACKETS HAVE BECOME STIFF AND BRITTLE AS A RESULT OF FOLLOWING THE RECOMMENDED DRY CLEANING TREATMENT

The two jackets have become stiff and brittle following a dry cleaning treatment in perchlorethylene that was fully compliant with the requirements of the 'Dry Cleanable (A)' care instruction on the care labelling, due to the loss of plasticiser from the vinyl coating on the underside of the black polyester outer shell fabric.

ENQUIRY

The client submitted two men's black polyester anorak-style zippered outdoor-style jackets, both labelled 'London Fog', one with sleeves and the other sleeveless, for examination and report. The purpose of the enquiry was to comment on the most likely cause of the severe stiffening of both of the jackets after recent dry cleaning.

The client reported that the jackets were dry cleaned in in-line refrigerated perchlorethylene charged with a proprietary soap product using a 10 minute cleaning cycle in a process that was intended to correspond with the requirements of the circled (A) dry cleaning symbol on the care labelling and no other stain removal procedures were used.

The client also noted that the jackets were air dried, rather than tumble dried in the dry cleaning machine, in order to minimise mechanical agitation on the garments, even though the care

labelling did not require this particular restriction.

LABELLING

- Designer/Manufacturer: London Fog
- Fibre Content Labelling: 100% polyester, lining - 100% nylon
- Care Labelling: Warm Hand Wash Using Mild Detergent, Do Not Bleach, Drip Dry, Do Not Wring, Do Not Tumble Dry, Warm Iron If Required, Dry Cleanable (A)
- Size: S

EXAMINATION

When the jackets were examined, it was immediately apparent that they had both become very stiff and brittle in texture, although the long sleeved jacket appeared to be stiffer than the sleeveless jacket. When the structure of the outer shell fabric was examined by unpicking a short length of lining in one of the

sleeves of the sleeved jacket, it was found that the outer shell polyester fabric had some type of white synthetic, almost certainly vinyl, coating on its underside.

Such coatings are used in to provide greater body to the fabric, as well as protection against wind and rain. It was very clear that this coating had become stiff and brittle following its dry cleaning treatment, and that it was also cracked and peeling in places. As a consequence of this reaction by the vinyl coating to the dry cleaning process, the jackets are now completely unserviceable for further use.

DISCUSSION

The polyvinyl chloride or PVC synthetic material used to coat the inside of the black polyester shell fabric of the two jackets requires the use of plasticisers or softening agents to maintain a soft and pliable texture needed for normal use in

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Steve is widely respected in his field and has had 28 years experience as a higher education/university textile educator. He has been preparing professional, unbiased and independent textile analysis reports for the last 23 years

Contact Steve with details of your textile problem so he can send you a TCS Textile Analysis Information Form or to discuss any other ways in which TCS may be able to assist

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garments. Unfortunately, the jackets have become stiff and brittle because the perchlorethylene solvent used in the dry cleaning process has caused the removal of these softening agents from the vinyl material.

The jackets are clearly labelled 'Dry Cleanable (A)' which means that they can be dry cleaned in perchlorethylene, the most commonly used dry cleaning solvent, and there are no restrictions indicated by this form of circled (A) dry cleaning symbol on the type of process that should be used, such as strict limitations on the use of mechanical agitation, moisture and heat. It follows, therefore, that any recognised dry cleaning treatment in perchlorethylene solvent would comply with the care labelling requirements of these two garments and this would most certainly apply to the dry cleaning process that the dry cleaner has reported using on them.

The dry cleaner has no way of determining which types of PVC coated garments are likely to lose their plasticiser from merely examining them. In addition, the garments are clearly labelled as dry cleanable in any recognised dry cleaning solvent with no process restrictions and the dry cleaner is entitled to accept that the attached care labelling is correct. Manufacturers are required to ensure that all the materials selected for their garments are stable and serviceable to all the care processes specified on their attached care labelling. Therefore, the responsibility for the failure of



these two garments to respond appropriately to a recommended dry cleaning treatment clearly lies with the manufacturer.

Copies of two technical bulletins on this particular problem of vinyl coatings and vinyl trim stiffening after dry cleaning, entitled 'Vinyl Garments Turn Hard - TABS-296' and 'Stiff Vinyl - TABS-223', both prepared by the International Fabricare Institute (I.F.I.) in the

U.S.A., are attached for further information about this problem.

CONCLUSIONS

The two garments are completely unserviceable to one of the two types of care treatment specified by the attached care labelling and the responsibility for this performance failure by the garments clearly lies with the manufacturer. The garments should be returned to the original point of purchase, along with a copy of this report, so that the customer can receive appropriate redress for his loss.

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