

## Test report direct dyesub on PU coated fabrics

Dear Customer,

Please find in this short memorandum the basic facts about the test we have done for you and your customers.

**Subject:** Dyesub printing on one-sided PU-coated fabrics

**Printer:** direct Dye sublimation printers

We made several tests printing dyesub on one sided Polyurethane coated fabrics like for example the *universal tentex FR +wos 4418/77*.

**Problem:**

An overflow of dye ink, which is not sublimated into the polyester, can be absorbed by the Polyurethane coating and can migrate uncontrolled, time delayed to the back of the fabric.

The problem gets visible, when the backside (PU side) gets in contact with the front side of the fabric some days or weeks after the print. The migrated ink can "transfer" uncontrolled to the front side and discolour the print. Simple contact of front and backside is normally not sufficient for this staining, at least a little pressure is necessary to support the process. In tests we stored sheets on top of each other and no discoloration appeared.

**What is supporting the problem / process:**

Quantity of dye inks:

Paper transfer seems to be not affected. Direct printing is affected, the higher the ink limit the more you could see the effect.

Type of inks:

solvent dyesub inks seem to be not affected, but water based dyesub inks. (oil based not tested)

contact:

The contact pressure between front- and backside. The more pressure the faster the affect can appear

## Test report direct dyesub and PU coated fabrics

### **Weight of the fabric:**

*Universal tentex FR +wos 4418/77* seems to be affected whereas *universal Lightex FR +wos 4499/77* (with a controlled ink limit) seems to be not / less affected

This problem should not be seen as a simple ink limit or profiling issue. The problem is only visible time delayed after impact of diverse factors. Please do intensive long term testing with your inks and machine set up before offering this solution to your customers.

### **What must you do!**

Please set the preheating and postheating on the printer to the maximum. The ink has to be dry before it goes into the calander or fixation unit.

All information is without engagement

Your Berger Team