UV Cationic Cure Release Coatings

UV coatings that cure by a cationic mechanism are subject to contamination by anything that has an alkaline nature. Our 1045 and 1048 series are examples of these types of products. They come in various levels of release and viscosity for use in many applications.

**ADHESIVES**

These are premium release products and can be used with a wide variety of adhesives. Varying degrees of release can be achieved from tight, or “zippery”, to easy. Please contact Technical Support for further information.

**SUBSTRATES**

Cationic coatings can be used on many substrates including coated and uncoated papers or flexible and rigid films, or plastics.

Some coated papers and films have been found to have chemicals in the coating that interfere with the cure of the cationic coating. Please test to make sure that the product cures sufficiently before running on a live job. If it does not, please contact us for a UV curable primer that can be used in conjunction with the release coating that will provide a barrier between the chemicals on your substrate and the cationic coating, so that it may cure.

In addition, uncoated papers may be very absorbent and require a higher viscosity product to keep it from “soaking in” to the paper. Your press speeds will also affect the degree to which the coating will penetrate the paper.

**POTENTIAL CONTAMINANTS**

Most water based inks typically contain high levels of amines causing interference in the curing mechanism of these products. In most cases, you will need to use a primer such as 1044PR to provide a barrier between the inks and the cationic coating.

UV inks, while they contain some amines, typically work well with these products when cured thoroughly. Please test completely with all colors before running a live job.

Solvent and offset inks typically work well once dried.

Do not mix cationic coatings with other UV curing products (i.e. free-radical curing). They are not compatible.

Do not mix cationic coatings with any other types of chemistries as this may cause cure problems.

Clean and dry all pans, pumps, hoses, etc. thoroughly before putting cationic coatings in the press. If ANY chemical that is alkaline remains in the system, your cationic coating will not cure and will have to be discarded.

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High humidity environments have also been seen to slow the cure of these products. Be aware of this possibility. This can typically be remedied by slowing down press speeds, increasing lamps, or increasing catalyst levels.

**QUALITY CONTROL**

It is imperative that quality controls be established for application and aging. The following areas need to be addressed and controlled.

♦ Substrates – See above

♦ Press Conditions – Increasing press speeds will affect rate of cure and other properties mentioned previously.

♦ Establish Release Values
  ➢ If you do not have a formal method for measuring release levels, at least perform pass fail monitoring of the adhesive off press, at 24 hours, and at different points in the life of the product.
  ➢ If you have a peel tester, determine peel/release values required for pass/fail.
    ▪ Determine for each different type of construction (various substrates).
    ▪ Determine peel values right off press and upon aging (24-48 hours).

♦ Storage – Store all finished product in controlled temperature environments. Sudden changes in temperature and humidity can adversely affect release values. Monitor product performance over time and from season to season to gain a better understanding of your environment and how it affects your performance.

**PRECAUTIONS**

Before running these products on a job, it is recommended that they be tested for the specific application for which they were meant. Aging tests should be performed for adhesive-to-release coating and substrate compatibility as well as different coating weights, cure speeds, and finished application surfaces.

Refer to Technical and Material Safety Data Sheets for handling, safety, and physical property information or contact a Technical Service Representative.

REV: 090808 Information will be updated as it becomes available.