DESCRIPTION:
MIRACURE® UVA3045F has been formulated as an UV-curable dry-peel laminating adhesive intended for application by roll or flexographic coaters. After the substrates are nipped together, curing is achieved via UV exposure. Full bond strength is achieved immediately off-press. It is especially suited for structures such as cellulose acetate and PET in the use of temporary phone or credit cards. The bond strength for the laminate is designed to survive the slitting and die-cutting process and retain the peelability. However, the performance may vary with substrates, inks, coating weight and curing conditions and needs to be verified before any product runs.

FEATURES & BENEFITS:
- Instant Cure
- Mid Range Viscosity
- Dry Peel

TYPICAL TECHNICAL DATA

<table>
<thead>
<tr>
<th>MIRACURE® UVA3045F</th>
<th>Appearance: Clear, Light Yellow Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solids Content:</td>
<td>100 %</td>
</tr>
<tr>
<td>Viscosity at 77°F Brookfield #2 @30rpm</td>
<td>580-640 cps</td>
</tr>
<tr>
<td>Weight per Gallon</td>
<td>10.00-10.50 lb/gal</td>
</tr>
<tr>
<td>Cure Optimization</td>
<td>40-80 mJ/cm² (using an H bulb at 300 watt/in)</td>
</tr>
</tbody>
</table>

TYPICAL APPLICATIONS:
MIRACURE® UVA3045F is recommended as a dry-peel laminating adhesive for cellulose acetate and PET typically used for direct mail:inline applications such as card inserts.

MIXING/APPLICATION DATA:
MIRACURE® UVA3045F must be well mixed before use; no further preparation is necessary.

APPLICATION METHOD:
MIRACURE® UVA3045F should be used on machines with precise web tension controls in order to optimize appearance. Its instant cure permits film-to-film laminations to be slit immediately after curing. Equipment should be cleaned before and after use with IPA or UV blanket washes. It is critical that these solvents are not mixed with the UV adhesive. UV adhesives are sensitive to contamination and should be shielded from exposure to UV sources (e.g., sunlight, fluorescent lamps, etc.). Contact with copper alloys must be avoided.

APPLICATION WEIGHT:
A coating weight of about 1.5 to 2.5 pounds/ream using an anilox roller of 3.5-5 bcm is recommended.

CURING CONDITIONS:
Suggested curing dosage for MIRACURE® UVA3045F is in the 40-80 mJ range. These guidelines may vary with coat weight and line speed. The converter should perform their own testing in order to determine optimum cure conditions.

CLEAN UP:
Appropriate care should be taken in the handling of this product. Avoid all contact with skin and eyes, and avoid inhalation of vapors. Wash skin with warm water and liquid detergent. Clean up equipment before and after use with IPA.
STORAGE CONDITIONS:
MIRACURE® UVA3045F is METAL REACTIVE. Do not allow this product to contact copper or its alloys. Store this product in sealed, dark containers below 100 deg. F. Do not store it under an inert atmosphere. Unopened containers of MIRACURE® UVA103E have a shelf life of about 6 months. Refer to Material Safety data sheet for further information.

END USE CONSIDERATIONS:
This adhesive was developed for industrial (non-food) packaging use. For food packaging applications, the actual film structure to be used in the package must be tested for “extractables” to determine whether it complies with FDA guidelines for food packaging.

SPECIAL NOTES:
Before we introduce a new adhesive to the marketplace, the adhesive is comprehensively tested in our own laboratories and on production equipment under our supervision. However, because of the hundreds of possible film combinations and the different printing ink systems used in various parts of the world, we cannot possibly forecast the performance of our adhesives under all circumstances. Therefore, we strongly urge converters to test our adhesives on a small scale and to establish that laminates made with our products are suitable for the end uses for which they are intended, prior to commencing large-scale commercial production.

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The data: represents the typical condition for the Product; is not intended for specification limits, certification standards, or other finite acceptance criteria; and may not be used for acceptance unless, in writing, Provider has agreed and reviewed and approved customer specifications and acceptance test methods.

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