UVivid Varnishes RV  UV Curing Varnishes & Coatings

PRODUCT INFORMATION

Fujifilm produce a range of UV curing varnishes and coatings for narrow web label printing. Products are available with a range of finishes and other properties.

Pre-Production Testing
UVivid RV varnishes are formulated to adhere to most grades of top coated or corona treated filmic materials with surface tension levels of 38 dyne/cm or higher. However, it is strongly recommended that all substrates and blocking foils are tested before use on a commercial run. Supposedly similar substrates can vary between manufacturers, and between batches from the same manufacturer. Certain plastics may be impregnated with lubricants that, like plasticiser migration, may impair adhesion and block resistance. It is also recommended to thoroughly test for compatibility when overprinted, as ribbons, toners and pigments used by overprint technologies can vary from batch to batch.

The end-user must determine suitability of this product for the intended use prior to production.

UVivid RVA07 Primer Coat
UVivid RVA07 Primer Coat is a flexo printable product that is designed to improve adhesion of UVivid Flexo JD colours when printed onto difficult substrates including metallised foils and PET. UVivid RVA07 must not be thinned and should not be mixed with any other product including inks or additives. Printers are strongly advised to assess the suitability of this product before starting a production run (see section entitled Pre-Production Testing)

UVivid RV Range

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Suitable for Flexo?</th>
<th>Suitable for Screen?</th>
<th>Finish</th>
<th>Overprintable?</th>
<th>Foil Blockable?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rv01</td>
<td>General Purpose Gloss Varnish</td>
<td>✓</td>
<td>✓</td>
<td>High gloss</td>
<td>x</td>
<td>✓</td>
</tr>
<tr>
<td>Rv01a</td>
<td>Matt Blockable Varnish</td>
<td>✓</td>
<td>x</td>
<td>Matt</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Rv05</td>
<td>Optically Bright Gloss Varnish</td>
<td>✓</td>
<td>✓</td>
<td>High gloss</td>
<td>x</td>
<td>✓</td>
</tr>
<tr>
<td>Rv07</td>
<td>UV Flexo Primer</td>
<td>✓</td>
<td>x</td>
<td>Gloss</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Rv11</td>
<td>Gloss Varnish (Non-yellowing)</td>
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<td>✓</td>
<td>Gloss</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Rv14</td>
<td>Gloss Blockable Varnish</td>
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<td>x</td>
<td>Gloss</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Rv15</td>
<td>Laminating Adhesive</td>
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<td>x</td>
<td>Gloss</td>
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<td>n/a</td>
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<tr>
<td>Rv16</td>
<td>Cold Foil Adhesive</td>
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<td>Gloss</td>
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</tr>
<tr>
<td>Rv17</td>
<td>High Slip Gloss Varnish</td>
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<td>x</td>
<td>High gloss</td>
<td>x</td>
<td>x</td>
</tr>
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<td>Rv18</td>
<td>General Purpose Matt Varnish</td>
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<td>x</td>
<td>Matt</td>
<td>x</td>
<td>x</td>
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<tr>
<td>Rv21</td>
<td>Gloss Blockable Varnish bzp-free</td>
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<td>x</td>
<td>Gloss</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>L Rv00</td>
<td>UV Matt Varnish (Plastics)</td>
<td>✓</td>
<td>✓</td>
<td>Ultra Matt</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>L Rv05</td>
<td>UV Matt Varnish (Paper)</td>
<td>✓</td>
<td>✓</td>
<td>Ultra Matt</td>
<td>x</td>
<td>x</td>
</tr>
</tbody>
</table>

Available in 5 kg containers

Main Characteristics

Properties
UVivid RV varnishes are a range of varnishes and coatings for narrow web label printing

Substrates
Most grades of supported and unsupported synthetic label stock including PE, PP, PVC, TC-PE, PP, PS and PET. Most commonly available papers, thermal papers and some metallised foils.

RVA07: primer for metallised substrates and PET.

Treatment Level
38-44 dynes/cm. Corona treatment may also improve adhesion and lay of the ink.

Plates and Tape (Flexo Products)
Most plates and tint rollers that are compatible with UV inks.

Doctor Blades (Flexo Products)
Reverse angle and chambered doctor blades. It is recommended that a doctor blade is always used.

Anilox (Flexo Products)
3-10 cm³/m² depending on finish and properties required

Screen (Screen Products)
Gallus: Screeny KS/KM
Stork: RSI 305 13%/17%

Cure
160w/cm (400w/inch) bulb 100% power

Wash-up
Plates, rollers, ancillaries: General Cleaner DFGC1
Deep cleaning of anilox: Deep Clean DFDCL
Automatic solvent wash out: Autowash Cleaner DFAUT

*Dependant on film weight.
Additives
ZE813 Fast Thinner – available in 5 ltr containers
ZE824 Flash Cure Thinner – available in 1kg containers

Storage
Containers should be tightly closed immediately after use. At the end of long print runs surplus varnish from the ink duct should be disposed of. Uncontaminated press returns should be stored under the same conditions as the unopened ink containers. UVivid RV Varnishes should not be stored in direct sunlight or near warm pipes and should be kept away from Peroxides. In the interest of maximum shelf-life storage temperatures should be between 10°C and 25°C. Varnishes and additives should not be stored in direct sunlight or extreme temperatures. Refer to Material Safety Data Sheet (MSDS) for materials and conditions to be avoided.

Shelf Life
When stored unopened in a cool environment UVivid RV Varnishes are expected to have a shelf-life of 12 months from the original date of manufacture, with the exception of RV391, RVA14 and RVA15 which have 18 months shelf-life.

Fujifilm Specialty Ink Systems Limited:
• Has certification to the International Environmental Standard, ISO 14001
• Is committed to minimising the risk to users of our products, and also to minimising the impact of our activities on the environment, from formulation through to production and supply.
• Research & development team, work to an in house Health, Safety and Environmental policy, termed ‘Design for Health, Safety and Environment’, with the aim of proactively developing products with the least impact on health, safety and the environment.
• Regularly review and monitor our impacts and activities, setting objectives and targets as part of a continual improvement process.
• Is committed to reducing waste through better use of raw materials, energy, water, re-use and recycling.

Safety and Handling
UVivid RV Varnishes:
• Are formulated to be free from any chemicals toxic to health, carcinogenic, mutagenic or reprotoxic according to Directive 67/548/EC.
• Have a flashpoint greater than 55°C and are therefore not classified as “dangerous substance” under the Dangerous Substances and Explosive Atmospheres Regulations (DSEAR).
• For optimum shelf life, all products should be stored at moderate temperatures, between 5°C and 30°C. Storage outside of these temperatures may lead to deterioration in the performance of the product.

Comprehensive information on the safety and handling of UVivid RV Varnishes is given in the appropriate Safety Data Sheets.

Environmental Information
UVivid RV Varnishes:
• Do not contain ozone depleting chemicals as described in the Montreal Convention.
• Are formulated free from aromatic hydrocarbons.
• Are free of any volatile solvent and can therefore be considered to have less impact on the environment, when compared with solvent-based products.