

## Which Coating for My Job?

An RR Donnelley Hoechstetter TipLine publication

Selecting the correct coating or varnish for a project can be a daunting task. The chart below weighs pros and cons of each available coating, and a short discussion of each follows.

**Varnish**—All varnishes are available on any press

### Gloss Varnish

High gloss  
Good protection  
Spot effects possible  
Adds saturation  
May fingerprint  
dark or light solids  
Good for hard, shiny  
or colorful products

### Dull Varnish

Reduces glare  
Tends to scuff  
Spot effects possible  
Pleasant tactile quality  
Resists fingerprints  
Good for soft product

### Satin Varnish

Intermediate gloss  
Good protection  
Spot effects possible  
Pleasing Compromise  
Resists fingerprints somewhat

**Aqueous**—press must be equipped with a coating tower.

### Gloss Aqueous

Best protection  
Overall  
Instant dry  
High gloss  
Less yellowing than varnish

### Dull Aqueous

Best protection  
Overall  
Instant dry  
Readability  
Soft appearance  
SoftTouch available

### Satin Aqueous

Best protection  
Overall  
Instant dry  
Readability  
Pleasing Compromise

### Pencil Receptive

Dull appearance  
Overall  
Instant dry  
Readability  
Writeable

**UV Coatings**—press must be equipped with a coating tower and UV lamps.

### Gloss UV

Highest Gloss  
Low-Fingerprint  
now available  
Spot effects possible  
Special effects  
Pearlescent—silver,  
blue, red  
Texture available  
Dry erase available

### Dull UV

Prone to fingerprinting  
Spot effects possible

**Gloss varnish:** Can be applied overall or spotted with high precision. This is the most popular and traditional way to achieve gloss. It increases saturation of colors, improves image contrast and offers good protection against rub-off. Some fingerprinting will be apparent on dark or light colors. A good choice for metallic, plastic, glass or other shiny products. Glare may impair readability.

**Dull varnish:** Protects the sheet with a non-reflective coating. Good for text-heavy pages. Tends to flatten and soften images, and adds a slightly rough tactile quality that is sometimes desirable. Printed with a litho plate, so it can also be spot applied with high precision. A good choice for products like

apparel that are soft or matte in appearance. Somewhat resistant to fingerprinting, but will tend to scuff or gloss up with wear.

**Satin varnish:** Achieved by mixing gloss and dull varnishes, offers an intermediate level of shine, with good scuff resistance.

**Opaque varnish:** Adding small amounts of opaque white to a varnish can give it minimal opacity, particularly helpful in creating separation with a dull varnish. A slight contamination with silver ink can accomplish the same thing on very dark colors only.

**Strike-through dull varnish:** A litho-plate printed varnish that, when overprinted with an overall gloss UV or aqueous coating, will create good separation between areas of a press sheet. Gloss/dull effects work best on dark colors, or when supported by underlying graphics.

**Gloss aqueous:** Generally applied overall, gloss aqueous offers better protection than gloss varnish. Sometimes spot-applied to keep it from a mailing panel, for instance, but this requires trimming a blanket, with edges that are not as clean as a varnish and registration that is less precise. Surface-dries instantly, making it an excellent choice for short run work-and-turn projects. All aqueous coatings will disguise surface flaws and roughness in non-print areas of an inexpensive sheet, but will not improve printability. Gloss improves apparent saturation of ink.

**Dull aqueous:** A scuff resistant dull coating, like gloss, generally applied overall. Like a dull varnish will soften and flatten images slightly.

**Satin aqueous:** A compromise between gloss and dull, offers a pleasing sheen and good protection.

**Pencil receptive aqueous:** A special dull aqueous coating designed to be pencil, ink and laser receptive.

**Dry erase aqueous coating:** A very inexpensive way to make any paper a dry erase product. High gloss.

**Primer aqueous:** A coating applied before lamination, or to difficult substrates to make them ink receptive.

**SoftTouch aqueous:** A patented finish, applied with a special metering roller, that offers a suede-like texture and extreme dull appearance.

**Gloss UV:** Highest printable gloss coating, can be spotted with a special plate.

**Pearlescent UV :** These gloss coatings include miniscule metal flecks in red, blue or silver, giving a pearlescent appearance.

**Orange peel UV:** A slightly raised, textured finish gives this coating a unique tactile and visual quality, similar in appearance to thermography.

**Final tips about paper selection and coatings:** When trying to achieve an overall dull effect with any coating, a gloss coated sheet is usually the best paper choice. The press coating will contribute the dull effect desired, and the gloss finish on the paper will provide superior printability. If a softer look or dull tactile quality is desirable, any dull coated sheet will still coat well.

Uncoated papers generally do not benefit greatly in appearance from coatings or varnishes, though either will prevent rubbing of heavy solids. Aqueous coatings may cause a light sheet, especially an uncoated sheet, to curl too much to be practicable. Gloss varnish will actually make mottle worse on an uncoated sheet, and a dull varnish will help slightly in reducing apparent mottle. Dull or satin varnishes or coatings are best choices for uncoated stocks.