

Technical Sales Sheet – Coating Blankets

Background

Coatings are used to offer functional or aesthetic properties to the printed sheet. Some of the benefits they offer are sheet protection, gloss, rub resistance, and quicker job turnaround due to quicker drying.

Coatings are applied through the ink train, a dampener unit, or the most common, a coating tower. All can use a rubber printing / coating blanket as the transfer vehicle, however a coating blanket specifically designed to transfer coatings is more desirable. Coating blankets are designed to have a lower surface tension which facilitated the transfer, and lay down of the coating to produce the desired results. Each of these methods shares the most important key to transferring coating – ‘Kiss Impression’. Unlike printing, when applying coating, less is best, when it comes to pressure. The coating blanket should be set up for each print job. This is done by backing the coating cylinder pressure down to where the coating bead does not transfer, then slowly increasing the pressure until it makes a solid roller stripe, No more pressure is needed.

Coating has three basic applications, flood, knock out, and spot. Flood coating is where the entire sheet is coated. Knock out is when parts of the coating blanket is cut out so that coating will not transfer to certain areas of the printed sheet. For example, glue tabs on a box, or the label window on direct mail. Spot coating typically uses an imaged photopolymer flexo plate to hold fine lines or tight register.

Coating can be manufactured for a variety of applications, however the most common finishes are work and turn, gloss and satin or matte. Typically a blanket with lower surface tension will produce better results on a satin coating, cast surface blanket, while the gloss coating can have equal results using a cast or buffed blanket. Flexo plates produce the highest quality results, however they are often cost prohibitive, and mainly costing 5 X the price of a coating blanket.



Components of a coating blanket

1. Surface

The surface of today's coating blankets consist of a polymer blend designed to be hydrophilic, (water loving). This lowers the surface tension allowing the blanket to transfer coatings more efficiently. The blanket can carry less coating resulting in less coating used, smoother lay down, and increase gloss.

2. Compressible layer

Often referred to as the foam layer, it supports two main functions. First it acts as a resilient cushion that absorbs some of the mechanical bounce of the press. But most importantly, this foam is specifically designed to provide a strip zone. When the coating blanket is cut for knock outs and peeled the foam splits at a predetermined depth allowing clean edges in the knock outs

3. Base

The base is specifically designed to provide stability to the blanket above. Many different substrates are used to construct the base. The main function of the base is to be dimensionally stable and solvent resistant.

4. Thickness

The majority of coating blankets come in standard 3 and 4 ply thickness, however many press have a plate clamp lock up system on the coating units and they will use a thinner blanket, (.037, .041), that is applied to a plate or Mylar. Adhesive backed blanket are manufactured to accommodate this application.



Selling a coating blanket

There are a few questions to ask when selling a coating blanket:

- 1- Are they using a coating blanket now? If yes, what blanket, how are the results?
- 2- Who is the current supplier?
- 3- What type of coating are they using aqueous, or UV?
- 4- What type of coating finishes are they using, work and turn, gloss, or satin?
- 5- Are they flood coating, performing knock outs or spot coating?
- 6- Is the coating blanket adhesive backed or fabric backed?
- 7- If it is adhesive backed, are they mounting the blanket to a plate, or mylar?
- 8- What is the monthly volume?

If – Then analysis

If they are using a printing blanket to coat with, then sell a coating blanket, the benefits are lower cost, the surface is specifically designed to transfer coating resulting in better lay down. Better lay down means that their coating will produce the effects that it was designed for.

If they are using UV coating, then sell them ----- Coating King. In some aggressive UV applications a EPDM surface rubber is needed, contact your Pic Representative for assistance.

If they mount blankets to a plate, mylar or directly to a cylinder sell – Resil, Adhesive Private label, or ND999.

Use Buffed coating blankets IF

They need to carry more coating to the sheet
They are running an absorbent stock
They have heavy ink coverage

Use Cast coating blankets IF

They are running satin or matte coatings
They are experiencing orange peel
They have a lot of knock outs



MacDermid

❖ **Resil**

Blue

Finely buffed surface

3 gauges (.035, .037, .041)

Can be used with both aqueous and UV coatings. Adhesive backed making it easy on and off the cylinder. No adhesive residue left behind. Bi-directional mounting. The buffed surface offers high quality varnish coatings. Strong compatibility with KBA/packaging model presses.

❖ **Coating King SB/FB (sticky back or fabric backed)**

Blue Grey

Buffed

3 & 4 ply

May be used with either aqueous or UV coatings. Clean, deep relief cut outs, due to unique “strip zone”. May be used on a wide variety of press models.

❖ **RC Series (sticky back RC 370/RC470, fabric backed RC3/RC4)**

Blue Grey

Buffed

3 & 4 ply

Once again MacDermid has designed a coating blanket that may flip flop between UV and aqueous solutions. Designed to allow for clean, reliable cutouts by hand or CAD system. Strip zone incorporated.

❖ **Poly-Select**

A unique coating system designed with the ultimate of ease in mind. This is no Stretch polyester mounted to one of the select MacDermid sticky back coating blankets. Polyester gauges available: .010 - .015.

The polyester is punched for easy mounting.

Commonly used on Mitsubishi presses.

Reeves

❖ **Vulcan Strippable**

Green

Smooth cast

3 & 4 ply

Engineered using a closed cell compressible layer, and a stable cotton woven carcass. Optimum results with inline units using varnish and aqueous coatings. Ideal for spot and flood applications. The smooth cast surface transfers varnish uniformly, while permitting excellent sheet release. May be used with CAD equipment or by traditional methods.

❖ **ND 999**

Gray

Precision Ground surface

3 Gauges (.0355, .037, .041)

Non-directional, versatile, compressible sticky back blanket. Utilized as a coating, forms, web, and envelope printing blanket. Closed-cell compressible construction eliminates bulge or blanket displacement near the nip.

