

## TL no 6 SELF-ADHESIVE MATERIALS for CURVED SURFACES

Consumers will subconsciously stay away from products that are incorrectly or badly labelled at the time of purchase.

When a label is incorrectly applied to a product, the results can be unappealing - the edges may lift away from the surface, or the label may wrinkle or bubble. These problems are magnified when the application surface is curved whether that be a wine bottle or an industrial drum.

By considering the four points below, you can avoid problems due to labels being incorrectly placed or used on an incompatible surface.

1. CONFORMABILITY OF THE FACE STOCK
2. GRAIN DIRECTION OF THE PAPER
3. END-USE CONDITIONS
4. HOW THE LABEL IS APPLIED TO THE SURFACE

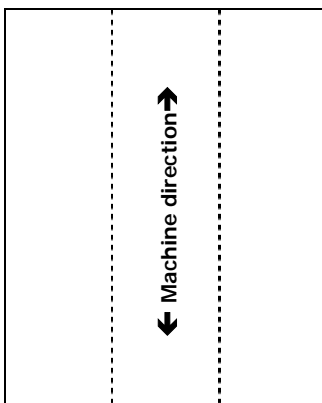


### 1. CONFORMABILITY

When surfaces are not flat, the degree of curve will affect how the label will conform to it.

Getting a label to stick to a small cylindrical tube will be more difficult than if the curve is slight or gradual. When working with severe curves, choose a self-adhesive product that is flexible or has a light or low base weight.

If a lightweight flexible paper is chosen for a curved application, adding a UV varnish over the print may enhance the label's attractiveness but will also stiffen the label and negate the flexibility that was needed in the first place.

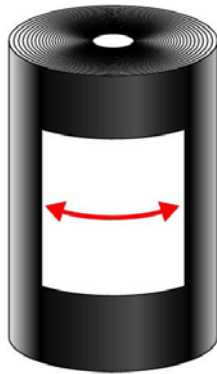


### 2. PRODUCTION DIRECTION

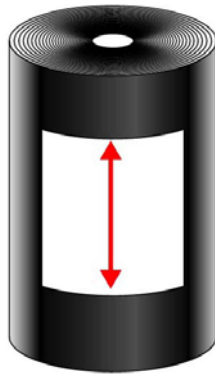
**MACline or Starliner score lines indicate the grain direction machine (machine direction) of the sheet\*.**

\* For non score lines products, the machine direction could be considered according to the size of the sheet – the second number indicates the machine direction : for example, for a sheet of 50 x 70, the machine direction is parallel to 70cm.

#### MACHINE DIRECTION (GRAIN)



Wrong application



Right application

Running a job in the wrong grain direction can contribute to edge lift. When a label is printed and then applied in the wrong grain direction, it will fight the surface onto which it has been placed and will try to spring back to its original shape. To avoid this problem, ensure that the grain runs parallel to the axis of the cylinder. When this is done, the grain works **for** rather than **against** the application.

### 3. END-USE CONDITIONS

It is evident that the label choice will also depend on where the label will be used.

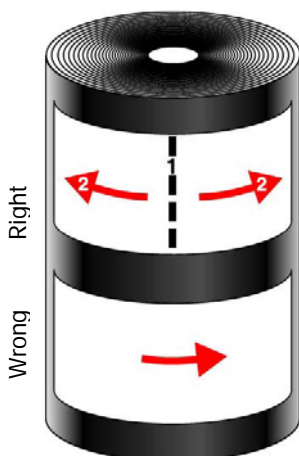
- If a printed label is used outdoors for industrial drums being stored in extreme weather conditions, the best face stock to be used will be a synthetic material such as MAClitho or vinyl film.
- If longterm outdoor storage is considered a high tack special permanent adhesive will be needed.
- Substrates differ. Painted steel drums or containers are easier to label than their high density moulded polypropylene or polyethylene equivalents (see also Tip Line n° 5)
- What will be stored in the container? In some cases, the choice of facestock, adhesive and printing inks will depend on the contents of the container. You will want to ensure that the facestock, adhesive and the ink are resistant to the contents so that any spillage will not break down the label.

Always test the label under actual application and end-use conditions before producing large label runs, thus avoiding potential problems.

### 4. APPLICATION HINTS

Finally, assuming conformability, grain direction versus label size and precise end-use conditions have been checked out, the last step is to make sure the label is applied correctly.

Apply only the **centre**, then smooth out left and right side.



Right

Wrong

- **Prepare the surface:** once you have chosen the best label for the job, the next step is to prepare the substrate for application and optimum performance. Be sure that the surface is **clean** and **dry**.
- **First, lay the label face down** and pull the liner away from the facestock. Do not pull back the facestock from the liner - this causes the face to curl and may result in flagging.  
**Next, align the label on the surface and then position by adhering only the centre** of the label to the substrate exactly where you want it, smooth out one side and then the other by applying uniform pressure.  
If you place the label on the surface from one side, and then roll it out, it is more likely to be misaligned. The more aggressive the adhesive and flexible the facestock, the more difficult repositioning a misaligned label will be.
- **Finally, press the label** down by hand to make sure that the entire label has made contact with the substrate. Too often edge lift occurs because one forgets to smooth out the edges.