

## In-Line Coating Facility/Essen, Germany

### Test Facility

Demonstration facilities still play a very important role in our daily work with customers. The new equipment in the RC Technical Facility is a powerful tool for demonstrating the versatility of RC silicones in industrial processes. It has three different coating stations, working on two levels. During the manufacture of self-adhesive laminates or tapes, it is possible to coat materials such as hotmelt and dispersion adhesives; as well as silicones, in a single web pass.



#### Machine parameters / Dimensions

- max. machine speed for siliconising 100 m/min
- web width (for release liner and face stock) max. 520 mm
- coating width for siliconising 500, 400, 300 and 145 mm, standard 520 mm
- coating width for hotmelts max. 500 mm, for emulsions 480 mm
- max. reel diameter 600 mm, max. reel weight 250 kg
- core diameters 70/76/152 mm for face stock, 76/152 mm for release liner

### Silicone coating and curing

A smooth 5-roll-coater is able to provide good surface coverage at low coat weights. The coating head can alternatively be used as a 3-roll-application system. The rolls are temperature controlled (heating/cooling). A wide range of substrates can be coated (20µm LDPE, 300 g/m<sup>2</sup> cardboard, non-woven, foams, aluminium foil, fabrics, etc.). Coat weights from 0.3 g/m<sup>2</sup> to several grams are possible for solventless silicones and other UV curable coatings.

The nitrogen Inerted UV station (max 200 W/cm) has adjustable power output and mechanical UV shutter control for high speed simulation.

### Adhesive coating and drying

A 2-roll gravure application system is used to coat emulsion adhesive. The coating system is able to run both the classical method for gravure coating as well as in the reverse direction. Drying takes place in a thermal jet drying oven on the first floor of the pilot line. The maximum speed is dependent on water content and coat weight.

- Drying at ambient temperatures to more than 200°C
- Temperature gradient for improved drying process
- UV curing of dried emulsion coating possible



The application of hotmelt adhesives is another possibility with the new demonstration line. The melted adhesive is continuously pumped to the heated slot die.

- Application of standard types of hotmelt, e.g. SIS, SBS blends
- Application of UV curable hotmelts and 'warm-melts'
- Coat weights between 15 and 50 g/m<sup>2</sup>
- UV station for hotmelt curing (80 W/cm; inerted)
- Inline corona treatment before hotmelt application

### More Information

To reserve of trial time on the new pilot line, please contact your technical service partner. Please send sample rolls to:

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Essen, April 2005, Version 08-2005

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(Status: April 2012)

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