

Product

Oct 2024

Phoenix Release RC10LVF Direct Thermal**Description**

Phoenix release RC10LVF is a coater ready release coating, suitable for Direct Thermal Linerless applications.

The RC10LVF can be applied via different coating technologies.

UV- curing only with nitrogen-inert UV- systems. Rest oxygen level < 50ppm.

Features

The RC10LVF is a fast-curing release coating, which guarantees a very high level of cross- linking. This results in a durable and stable network with less silicone migration towards the PSA.

- Designed for easy release applications.
- Suitable for medium-pressure UV and UV- LED curing technology.
- Excellent anchorage due to the high functionality.
- Suitable for indirect food contact after complete UV- curing.
- Improves mechanical and chemical resistance of the thermal paper.
- Excellent coating quality.
- Less contamination on the thermal heads.
- Suitable for a wide range of pressure sensitive adhesives.

Precautions

The product can be stored in a dry environment with temperature between 5 – 40 °C. The shelf life is 12 months from date of production. **RC10LVF needs to be stirred for at least 5 mins with a motor driven high speed agitator prior to application and continually mixed and recirculated during use to maximize consistency.** Close container immediately after usage. When pre-printing prior to apply the Phoenix RC10LVF, it must be checked whether the printing ink meets the following properties and requirements:

- Pay attention that the inks are well UV- cured or heat dried.
- Check the adhesion of the pre- printed ink before applying the RC10LVF.
- Inks should not contain (non-reactive) silicone additives, waxes or any other surface-active ingredients which can influence the RC negatively.

Performance

| Property | Value | Units |
|------------------------------|-------------|----------|
| • Viscosity: | 750- 1050 | mPa.s |
| • Appearance: | milky white | |
| • RF Tesa 7475 FTM3: | 10-15 | cN/25 mm |
| • RF Tesa 7475 FTM10: | 10-15 | cN/25 mm |
| • RF Tesa 4090 FTM3: | 5-10 | cN/25mm |
| • RF Tesa 4090 FTM10: | 5-10 | cN/25mm |
| • Subsequent Adhesion FTM11: | > 90 | % |

Important Checks

- The UV- curing system need to have sufficient performance and UV dose.
- **Regular maintenance of quartz plate, UV lamps, reflector and nitrogen supply is indispensable for safe and stable curing results.**
- Corona treatment will improve anchorage.
- For trouble-free processing in the thermal printer a coating weight of $\sim 1\text{g/m}^2$ is recommended.
- For constant processing conditions, heating to 40°C would be beneficial.
- Coating quality needs to be tested on paper with methylene blue, no pinholes.
- Loop test: Apply an $\sim 20\text{cm}$ tape on the cured silicone. Peel it off and form a loop by putting the adhesive side together. Check by opening the loop if there is silicon migration to the adhesive.

Background

The information is based on our experience. Because of the differences in materials for printing, processing conditions and test criteria this information can only be of an advisory nature. Our data reflect the latest state of our knowledge and are based on the characteristics established in the laboratory and on practical experience. Your own tests with the original materials under the respective conditions are indispensable. We disclaim any liability for applications for which this product is not foreseen. The user must determine under his own production conditions if the product meets his requirements.