

Product

Aug 2023

**Phoenix Release RC10LV****Product description**

Phoenix release RC10LV is a coater ready release coating, suitable for linerless applications on thermal paper. The product can be applied via different coating technologies like gravure (Flexo), doctor blade and multi roll coating. The coating needs to be cured with UV radiation. Nitrogen inerting (N<sub>2</sub> blanket) is required with a residual O<sub>2</sub> level of <50ppm. The RC10LV coating will result in an easy release level, depending on adhesive used. The release force can be reduced by adding Phoenix Modifier RC81. Viscosity can be lowered by adding Reducer RC100.

(M) Matte setting can be supplied.

**Features**

The RC10LV is a fast-curing release coating, which guarantees a very high level of cross-linking. This results in a stable network and less silicone migration towards the pressure sensitive adhesive.

Characteristics:

- Excellent anchorage on paper and film substrate
- High mechanical resistance
- Less contamination on the thermal heads
- Excellent chemical resistance
- High moisture resistance
- Excellent coating performance and quality with coating weights < 1 g/m<sup>2</sup>
- Suitable for a wide range of adhesives. Standard and UV curable hotmelts, acrylic water based.
- Stable release force, immediately and after aging

**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. RC10LV needs to be stirred for at least 5 mins. prior to application. Close container immediately after usage. When pre-printing prior to apply the Phoenix RC10LV, it must be checked whether the printing ink meets the following properties and requirements:

- Inks should be recommended from the thermal paper supplier
- Pay attention that the inks are well UV-cured or heat dried
- Avoid a too high ink weight because it will influence the thermal print density
- Be sure that the inks have a heat resistance > 200°C
- Check the adhesion of the ink on the thermal paper before applying the RC
- Inks should not contain (non-reactive) silicone additives, waxes or any other surface-active ingredients which can influence the RC negatively

# Phoenix Release

## Product performance RC10LV

Property	Value	Units
• Viscosity:	850	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 factors

- Corona treatment will improve anchorage
- UV system need to have sufficient performance and UV dose
- Regular maintenance of quartz plate, UV lamps, reflectors is needed for good curing results.
- Oxygen level in the nitrogen chamber needs to be below 50 ppm
- Coating weight depends on the roughness of the substrate. Anilox roll needs to be selected accordingly.
- Coating quality needs to be tested on paper with methylene blue, no pinholes

## 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.