TECHNICAL DATA SHEET

Phoenix Release

Product June 2022

Phoenix Release RC30 UV-LED

Product description

Phoenix release RC30 is a coater ready release coating suitable for paper liner, film liner and other materials. The coating is developed for UV-LED curing with a wavelength from 385 – 395 nm under inerting conditions.

The RC30 coating can be applied via different coating processes like gravure (Flexo), doctor blade and multi roll coating technology. The coating needs to be cured with UV light, inertisation (N2 blanket) is required to a level of <50ppm residual O2. RC30 coating will result in an easy release level, depending on adhesives used. The release force can be reduced by adding Phoenix Release RC81 modifier.

Features

The RC30 is a fast-curing release coating, which guarantees a high level of cross- linking under normal production conditions. This results in less silicone migration towards the pressure sensitive adhesive.

The RC30 release coating does have:

- Immediate curing despite low radiant
- Excellent anchorage on paper and film substrates
- Less Yellowing
- High mechanical and chemical resistance
- Easy, medium release; release force depends on the adhesive used
- Excellent coating performance and coating quality
- Suitable for a range of pressure sensitive adhesives; standard and UV curable hotmelts, acrylic water based
- Stable release force

Precautions

The Phoenix release RC30 formulations needs to be stirred for at least 5 mins. prior to application. The RC30 formulation can be stored in a dry environment with temperature between 5 – 40 °C. The shelf life is 12 months from date of production. Close container immediately after usage.

For more information on Phoenix Release products and services, please contact us at
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Product performance RC30

Property	Value	Units
• Viscosity:	600 – 800	mPa.s
• Appearance:	milky white	
• RF Tesa 7475 FTM3:	7-10	cN/25mm
RC Tesa 7475 FTM10:	9-12	cN/25mm
• RF Tesa 4090 FTM3:	3-5	cN/25mm
RF Tesa 4090 FTM10:	4-7	cN/25mm
• Subsequent Adhesion FTM11:	>90	%

Important factors

It is of crucial importance that the machine set up is correct:

- Using a Corona treater prior to applying the release coating will improve anchorage
- UV LED wavelengths 385- 395nm
- Quartz plate, protecting the UV lamps, needs to be clean. If not cleaning with IPA or EtAc is required
- The Nitrogen blanket needs to function well; Oxygen level needs to be below 50 ppm in UV chamber
- Anilox roll or multi roll coating head needs to be cleaned prior to coating job; at least 1gm^2 of the RC30 coating needs to be applied
- 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.

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