

Technical Data Sheet Rolic® LCMO ROF 5192-359

Description Rolic® LCMO ROF 5192-359 is a Liquid Crystal Polymer (LCP) material, also called reactive mesogen solution, which is a key material in Rolic's Light Controlled Molecular Orientation (LCMO) technology.

In combination with Linear Photo Polymerization (LPP) alignment material, the design and production of unique anisotropic thin films become possible.

Demonstrator samples of various Rolic® LCMO-optical films are available.

ROF 5192-359 was developed to form a $\lambda/4$ retardation film oriented by ROP 133-302 (LPP) on a 50 μ m TAC film.

- Features** Rolic® LCMO ROF formulations are designed to achieve the best
- Optical performance in retardation or for viewing angle enhancement films
 - coating properties for uniform layers
 - good adhesion of all layers in whole optical film stack
 - wide process window
 - fast cycle time

Properties:	Solvent	Butylacetate/Cyclohexanone
	Solid content	35 %
	Aspect	slightly yellowish liquid
	Kinematic Viscosity	6-8 mm ² /s

Typical process

Conditions:	Wet-coating	5-6 μ m
	Drying temperature	70 °C (depending on substrate)
	Drying time	25 s
	Photo-sensitivity	UV-A (random polarization; UV-B to be filtered/blocked)
	Exposure energy	30-500 mJ/cm ² (must be adjusted to process)
	Atmosphere	coated & not yet crosslinked LCP should be protected from oxygen, (Process step coating to UV-crosslinking under inert gas like e.g. N ₂)

Customization All LCMO materials can be customized to ensure compatibility to substrate, process and other interfaces for best optical performance, wide process window and high throughput.

Handling and Storage	Storage temperature	20 °C – 25 °C
	Storage container	product must be protected from light (store in original packaging only)
	Shelf life	6 months

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