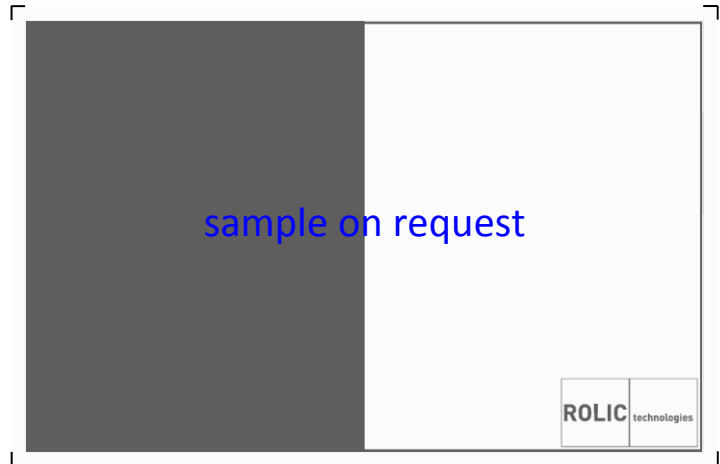


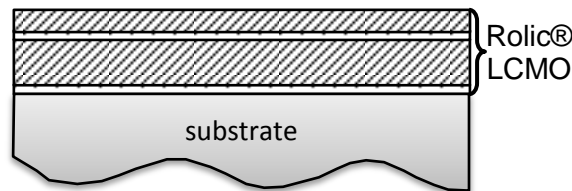
## Rolic® LCMO Demonstrator:

### LCMO achromatic $\lambda/4$ Retarder (aQWP)

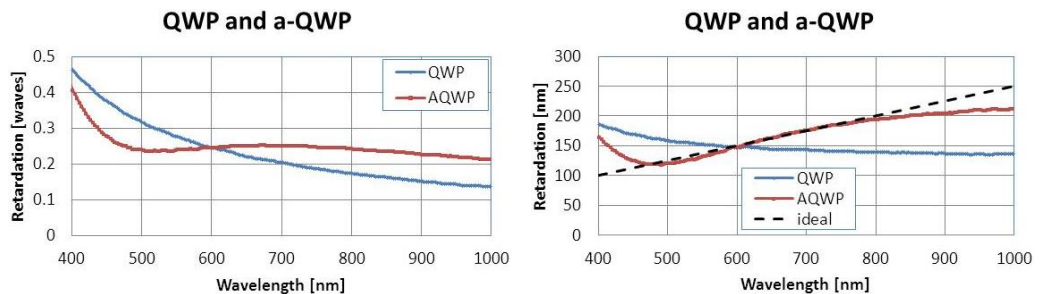


<b>Description</b>	Rolic® LCMO achromatic retarders offer homogeneous retardation values over the whole coated area as well as in a big wavelength range.
<b>Features</b>	<p>Rolic® film patterned retarder are produced using the Rolic® LCMO (Light Controlled Molecular Orientation) technology, which is photo alignment of Linear Photo Polymerization materials (LPP) and subsequent orientation of Liquid Crystal Polymers (LCP).</p> <p><b>This technology enables:</b></p> <ul style="list-style-type: none"> <li>• combination with other LCMO-optical films</li> <li>• wide substrate choice (also glass)</li> <li>• thinner retarders compared with standard QWP films</li> <li>• retardance adjusted to the specific requirements of the application.</li> </ul>

#### Stack design: a- $\lambda/4$ Retarder (aQWP)



#### Optical characterization:



## LCMO achromatic $\lambda/4$ Retarder (aQWP)

<b>Properties of Demonstrator:</b>	Substrate	TAC (Cellulose Triacetate)
	Total thickness	<55 $\mu\text{m}$
	Substrate thickness	50 $\mu\text{m}$
	Coating thickness	<5 $\mu\text{m}$
	Transmission	>95 % @ 550 nm
	Retardation	$\lambda/4$ (400nm-700nm)
<b>Life-time</b>	Optical films produced with Rolic's LCMO technology will maintain their orientation even under thermal stress, high humidity and exposure to intensive visible light.	
<b>Customization</b>	While the demonstrators have been designed to showcase the application of Rolic LCMO technology as achromatic $\lambda/4$ retarder, the same technology can be used for customized solutions when a different retardation is required.	
<b>Range of properties:</b>	Substrate	any substrate (any chemistry, any thickness, rigid, flexible)
	Transmission	>95% @ 600 nm
	Retardation	adjustable to application e.g. $\lambda/4$ (QWP), $\lambda/2$ (HWP) or $\lambda/x$ (any value) optimized for a desired wavelength range

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