

a clear vision for eyecare

**REXAM**

# Preservative-free eyedropper



## Novelia™

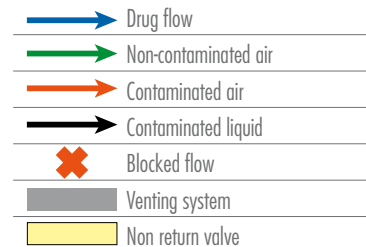
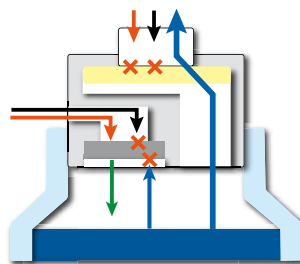
Multidose closing tip system avoids the need to add preservatives to the drug and prevents bacterial contamination over treatment duration

This innovative tip is the new Rexam proprietary ophthalmic platform. The drop size can be adapted. The product is designed for formulations up to 1000 m.Pa.s.

### Key advantages

- works with high viscosity suspensions and solutions up to 1000 m.Pa.s
- compatible with most existing fill lines
- preassembled cap and nozzle simplifies filling process
- identical use to standard multidose eyedropper
- user-friendly: easy-to-hold, discreet and compact
- low squeeze force
- calibrated drops

### Functioning



### Successful microbial integrity testing

- tested against the worst-case scenario of 4-days exposure to contamination
- tested against long-term use scenario of continual use for up to 28 days
- other highly challenging tests to assess the performance of the valve

### Simplified filling process

- bottle filling is similar to standard eyedropper
- nozzle and cap are delivered in one sub-assembly
- nozzle/cap sub-assembly is permanently screwed onto bottle after filling



# Tamper evident eyedroppers



## Rispharm

Fully tested according to USP

	Reference	Size		Diameter		Neck		Raw material
		(cc/ml)	(oz)	(mm)	(inches)	(mm)	(inches)	
Bottle	1653	5	0.17	21	0.83	13	0.51	LDPE
	1730	10	0.34	24	0.945	13	0.51	LDPE
	1620	10	0.34	24	0.945	13	0.51	PP
	1620	10	0.34	24	0.945	13	0.51	HDPE
	1749	15	0.51	24	0.945	13	0.51	LDPE
	1770	25	0.85	31	1.22	13	0.51	LDPE

	Reference	Shape	Drop size (mm <sup>3</sup> )*	Flow control	Raw material
Nozzle	7781	short	43	limited flow	LDPE
Cap	7496	short	-	-	HDPE

\*Drop size measured with water



## Kerpharm

Flow control

	Reference	Size		Diameter		Neck		Raw material
		(cc/ml)	(oz)	(mm)	(inches)	(mm)	(inches)	
Bottle	0910	5	0.17	20	0.787	13	0.51	LDPE
	4966	7.5	0.25	22	0.866	13	0.51	LDPE
	0800	10	0.34	22	0.866	13	0.51	LDPE
	0800	11	0.37	22	0.866	13	0.51	LDPE
	0799	15	0.51	26	1.024	13	0.51	LDPE
	4850	20	0.68	28	1.102	13	0.51	LDPE

	Reference	Shape	Drop size (mm <sup>3</sup> )*	Flow control	Raw material
Nozzle	7327	long	43	with or without	LDPE
	7408	short	30	without	LDPE
	7408	short	50	with or without	LDPE
	7192	short	42	without	LDPE
	7389	short	42	with	LDPE
Cap	7368	long	-	-	PP
	7493	long	-	-	HDPE
	7516	short	-	-	HDPE

\*Drop size measured with water



## Kerpro

Eyedroppers in polypropylene

	Reference	Size		Diameter		Neck		Raw material
		(cc/ml)	(oz)	(mm)	(inches)	(mm)	(inches)	
Bottle	0981	8	0.27	21	0.83	13	0.51	PP
	0976	10	0.34	23	0.905	13	0.51	PP

	Reference	Shape	Drop size (mm <sup>3</sup> )*	Flow control	Raw material
Nozzle	7534	long	45	without	PP
Cap	7368	long	-	-	PP

\*Drop size measured with water

# Cylinder containers



Reference	Size		Finish	Raw material	Weight (grams)	Overall height		Width		Over flow capacity	
	(cc/ml)	(oz)				(mm)	(inches)	(mm)	(inches)	(cc/ml)	(oz)
5026	30	1	M24SP400	HDPE	5.5	70.35	2.77	29.71	1.17	38	1.285
5091	30	1	M20SP410	HDPE	5.5	73.81	2.906	28.16	1.109	34	1.15
5052	30	1	M20SP410	HDPE	5.4	73.12	2.879	27.66	1.089	32	1.082
5253	59	2	M24SP410	HDPE	10	94.99	3.74	35.23	1.387	70	2.367
5532	59	2	M24SP410	LDPE	12	95.75	3.77	35.71	1.406	70	2.367
7133	118	4	M24SP410	HDPE	14.5	120.54	4.746	42.41	1.67	135	4.565
2377	118	4	M20SP410	HDPE	11.5	117.62	4.631	42.49	1.673	138	4.66
2079	118	4	M24SP400	HDPE & LDPE	12	120.80	4.756	42.41	1.67	136	4.6
2079	118	4	M24SP410	HDPE & LDPE	13	120.80	4.756	42.41	1.67	136	4.6
2079	118	4	M24SP410	HDPE & LDPE	15	120.80	4.756	42.41	1.67	136	4.6
2079	118	4	M24SP415	HDPE & LDPE	12	120.80	4.756	42.41	1.67	136	4.6
5785	237	8	M24SP410	HDPE	20 & 22 (varies based on finish)	156.08	6.145	50.8	2	258	8.724
2176	237	8	M24SP410	HDPE	20	156.87	6.176	50.8	2	266	8.995
2176	237	8	M28SP410	HDPE	22	156.87	6.176	50.8	2	266	8.995

Place of production: USA

## Specialist in primary ophthalmic packaging

Rexam has been manufacturing proprietary and customized eyecare products for major ophthalmic players for more than 30 years.

We offer a large range of proprietary eyedroppers with packaging that fits your requirements in terms of appearance, drug compatibility, barrier properties, drop size and filling volumes. Features such as flow control to avoid spurts of fluid, tamper evident systems that guarantee the integrity of the drug and preservative free systems demonstrate that we put patients first. Our products are tested according to US and EU regulatory requirements.

We manufacture products in ISO 7 clean rooms and most of them are delivered sterilized. We have extensive experience in supporting customers for their gamma sterilization process qualification according to ISO 11137.

## INNOVATIONS

### User independent eyedropper tip

We are designing a new platform of a closing tip that can deliver small drops with excellent consistency, regardless of the orientation and squeeze force. It will be compatible with the Rispharm range of bottles and will have a flow control system to prevent jets and double drop delivery.

### Pump systems

An ophthalmic pump and a side actuation device integrating the pump are in concept phase. The pump can release smaller drops with better dose consistency than other eyedroppers without the risk of jets or double drops. The concept could be adapted with the preservative free features of Novelia™.