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ABOUT US

MİRAY MEDİKAL, founded in 2005 Bursa, is an innovative company that specializes in the field of Ophthalmology. We are the pioneers of the industry that invest in ophthalmology sector in Bursa, considering both international developments and domestic needs.

Our products are manufactured using the highest levels of care and precision at our manufacturing facility with an indoor area of 2500 m² which is equipped with the advanced technology machines and equipments. We offer the highest quality products and outstanding customer service with our authorized distributors throughout Turkey and the world.

Our Quality Management System is documented through certifications EN ISO 13485:2016 and 2195 CE that ensures that all products and processes meet and exceed prevailing standards.

Our experienced staff is aware of the importance of the human life. So we believe in continuous improvement without compromising on quality. We strive hard to make each and every modern technology and development within the easy reach of ophthalmic surgeons and eye care professionals and to provide them with the best quality and confidence.

Honest, principled and fast service concept of Miray Medikal proves that human health is at the core of our business values.

Thank you for your confidence and preference.

Atakan DEDE
General Manager



Technical Data

OCUSALT®

pH	6.5 - 7.2
Osmolality	285 - 315 mOsm/kg
Volume	20 mL - 500 mL
Packing	12x500 mL glass bottles including hanging devices 20 mL plastic bottles including hanging devices

Composition (100 mL)

Calcium chloride 2H ₂ O	0.048 g
Potassium chloride	0.075 g
Sodium chloride	0.640 g
Magnesium chloride 6H ₂ O	0.030 g
Sodium acetate 3H ₂ O	0.390 g
Trisodium citrate 2H ₂ O	0.170 g
Water for injection	q.s



Ocusalt® Balanced Salt Solution (BSS) is a sterile irrigating solution for use during both intra-ocular and extra-ocular surgical procedures

FEATURES

- Physiologic solution
- Isotonic to ocular tissues
- Preservative free
- Great for all ophthalmic surgical procedures
- Steam Sterilized
- 3 year shelf life

OPHTHALMIC VISCOSURGICAL DEVICES (OVDs)



FEATURES

- Multiple concentrations to meet surgeons' demands
- No refrigeration required
- Easy injection
- Great protection of endothelial cells
- Excellent maintenance of the anterior segment
- Outstanding optical clarity
- Easy removal
- Steam sterilized
- Blister pack for extra protection

Technical Data

NEOCROWN® 1.4%

Concentration	14 mg/ml (1.4%) of sodium hyaluronate
Origin	Biofermentation
Molecular Weight	3 – 4 million daltons
Viscosity	125.000 – 150.000 mPa.s
Osmolality	270-400 mOsm/kg
Classification	Cohesive
pH	6.0 – 8.0
Cannula	27G
Volume	1 ml

Composition (1ml)

Sodium hyaluronate	14.000 mg
Sodium chloride	8.500 mg
Disodium hydrogen phosphate	0.563 mg
Sodium dihydrogen phosphate	0.045 mg
Water for injection	q.s



Technical Data

MEGACROWN® 1.8%

Concentration	18 mg/ml (1.8%) of sodium hyaluronate
Origin	Biofermentation
Molecular Weight	3 – 3.6 million daltons
Viscosity	130.000 – 220.000 mPa.s
Osmolality	270-400 mOsm/kg
Classification	Cohesive
pH	6.0 – 8.0
Cannula	27G
Volume	1 ml

Composition (1ml)

Sodium hyaluronate	18.000 mg
Sodium chloride	8.500 mg
Disodium hydrogen phosphate	0.563 mg
Sodium dihydrogen phosphate	0.045 mg
Water for injection	q.s



Technical Data

OCULOCROWN® 2.0%

Concentration	20 mg/ml (2.0%) of sodium hyaluronate
Origin	Biofermentation
Molecular Weight	1.1 – 2.0 million daltons
Viscosity	90.000 – 120.000 mPa.s
Osmolality	270-400 mOsm/kg
Classification	Dispersive
pH	6.0 – 8.0
Cannula	25G
Volume	1 ml

Composition (1ml)

Sodium hyaluronate	20.000 mg
Sodium chloride	8.500 mg
Disodium hydrogen phosphate	0.563 mg
Sodium dihydrogen phosphate	0.045 mg
Water for injection	q.s



Technical Data

CrownVisc® 1.0%

Viscoelastic solution for intraocular use

Sodium Hyaluronate	1.0 %
Molecular Weight	3-3.6 million daltons
Viscosity	20 - 70.000 mPa.s
Osmolality	270-400 mOsm/kg
Storage	2-25 °C
pH	6.0 - 8.0
Origin	Biofermentation
Classification	Cohesive
Cannula	27G
Volume	1 mL - 1.5 mL - 1.6 mL

Composition (1 mL)

Sodium Hyaluronate	10.000 mg
Sodium Chloride	8.500 mg
Disodium Hydrogen Phosphate	0.563 mg
Sodium Dihydrogen Phosphate	0.045 mg
Water for injection	q.s



CrownVisc® is a sterile, non pyrogenic viscoelastic solution containing high-quality sodium hyaluronate derived from bio-fermentation.

Technical Data

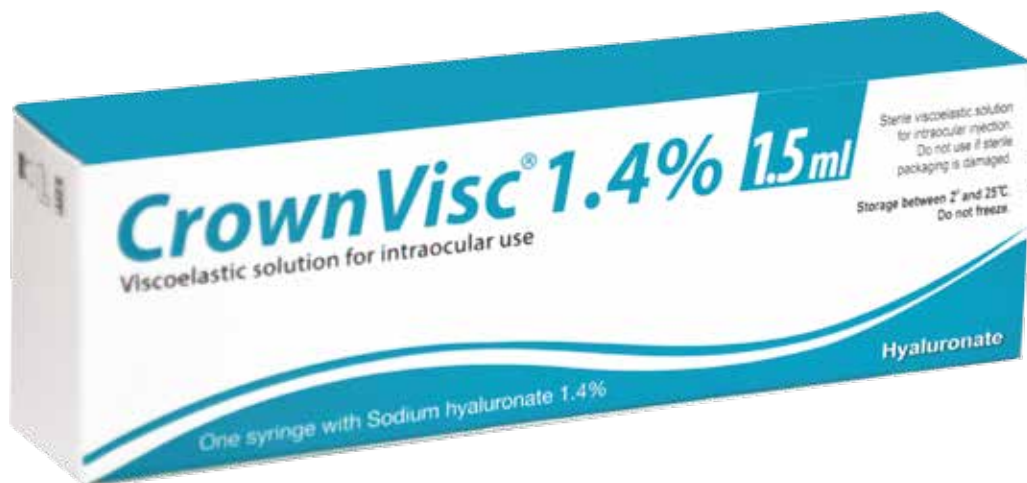
CrownVisc® 1.4%

Viscoelastic solution for intraocular use

Sodium Hyaluronate	1.4 %
Molecular Weight	1.1 - 2.6 million daltons
Viscosity	40 - 70.000 mPa.s
Osmolality	270-400 mOsm/kg
Storage	2-25 °C
pH	6.0 - 8.0
Origin	Biofermentation
Classification	Dispersive
Cannula	27G
Volume	1 mL - 1.5 mL - 1.6 mL

Composition (1 mL)

Sodium Hyaluronate	14.000 mg
Sodium Chloride	8.500 mg
Disodium Hydrogen Phosphate	0.563 mg
Sodium Dihydrogen Phosphate	0.045 mg
Water for injection	q.s



CrownVisc® is a sterile, non pyrogenic viscoelastic solution containing high-quality sodium hyaluronate derived from bio-fermentation.

Technical Data

CrownVisc®1.6%

Viscoelastic solution for intraocular use

Sodium Hyaluronate	1.6 %
Molecular Weight	1.1 - 2.6 million daltons
Viscosity	80 - 140.000 mPa.s
Osmolality	270-400 mOsm/kg
Storage	2-25 °C
pH	6.0 - 8.0
Origin	Biofermentation
Classification	Dispersive
Cannula	27G
Volume	1 mL - 1.5 mL - 1.6 mL

Composition (1 mL)

Sodium Hyaluronate	16.000 mg
Sodium Chloride	8.500 mg
Disodium Hydrogen Phosphate	0.563 mg
Sodium Dihydrogen Phosphate	0.045 mg
Water for injection	q.s



CrownVisc® is a sterile, non pyrogenic viscoelastic solution containing high-quality sodium hyaluronate derived from bio-fermentation.

Technical Data

CrownVisc® 1.8%

Viscoelastic solution for intraocular use

Sodium Hyaluronate	1.8 %
Molecular Weight	1.1 - 2.6 million daltons
Viscosity	100 - 180.000 mPa.s
Osmolality	270-400 mOsm/kg
Storage	2-25 °C
pH	6.0 - 8.0
Origin	Biofermentation
Classification	Dispersive
Cannula	27G
Volume	1 mL - 1.5 mL - 1.6 mL

Composition (1 mL)

Sodium Hyaluronate	18.000 mg
Sodium Chloride	8.500 mg
Disodium Hydrogen Phosphate	0.563 mg
Sodium Dihydrogen Phosphate	0.045 mg
Water for injection	q.s



CrownVisc® is used to maintain anatomical space of the anterior segment with reduced trauma to the corneal endothelium during surgery.

Technical Data

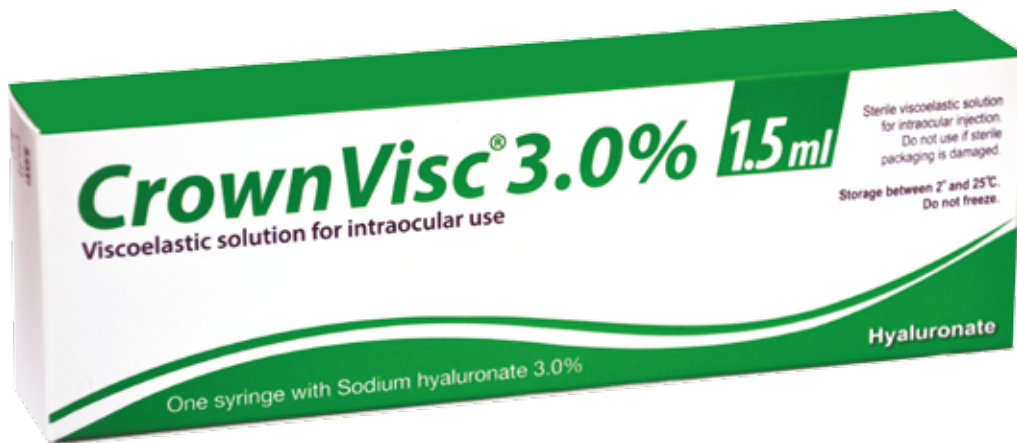
CrownVisc® 3.0%

Viscoelastic solution for intraocular use

Sodium Hyaluronate	3.0 %
Molecular Weight	1.1 - 2.0 million daltons
Viscosity	150 - 250.000 mPa.s
Osmolality	270-400 mOsm/kg
Storage	2-25 °C
pH	6.0 - 8.0
Origin	Biofermentation
Classification	Dispersive
Cannula	25G
Volume	1 mL - 1.5 mL - 1.6 mL

Composition (1 mL)

Sodium Hyaluronate	30.000 mg
Sodium Chloride	8.500 mg
Disodium Hydrogen Phosphate	0.563 mg
Sodium Dihydrogen Phosphate	0.045 mg
Water for injection	q.s



CrownVisc® is used to maintain anatomical space of the anterior segment with reduced trauma to the corneal endothelium during surgery.

Technical Data

CrownGel 2.0%

Viscoelastic solution for intraocular use

CrownGel 2.4%

Viscoelastic solution for intraocular use

Hydroxypropyl Methylcellulose	2.0 %	2.4 %
Viscosity	3.000 - 5.000 mPa.s	6.000 - 8.000 mPa.s
Osmolality	270 - 400 mOsm/kg	270 - 400 mOsm/kg
pH	6.0 - 8.0	6.0 - 8.0
Volume	2 mL	2 mL
Packing	10 per box	10 per box

Composition (1 mL)

Hydroxypropyl Methylcellulose	20.000 mg	24.000 mg
Sodium chloride	6.40 mg	6.40 mg
Potassium chloride	0.75 mg	0.75 mg
Calcium chloride 2H ₂ O	0.48 mg	0.48 mg
Magnesium chloride 6H ₂ O	0.30 mg	0.30 mg
Sodium acetate 3H ₂ O	3.90 mg	3.90 mg
Trisodium citrate 2H ₂ O	1.70 mg	1.70 mg
Water of injection	q.s	q.s



CrownGel® Sterile Viscoelastic Solution Containing Pharma grade HPMC

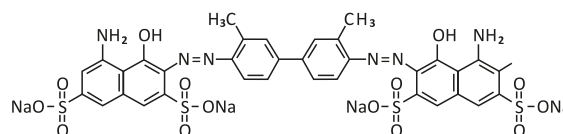
CrownGel is used to maintain anatomical space and avoid collapsing of the chamber in anterior segment surgical procedures such as cataract extraction and IOL implantation.

OCUBLU®-TRY TRYPAN BLUE



Formula	$C_{34}H_{24}N_6Na_4O_{14}S_4$
Concentration	0,02%, 0,04%, 0,06%
Packing	1 ml in vial / 10 per box 1 ml in syringe / 10 per box

Ocublu-Try Trypan Blue 0.02% - 0.2 mg 1mL
 Ocublu-Try Trypan Blue 0.04% - 0.4 mg 1mL
 Ocublu-Try Trypan Blue 0.06% - 0.6 mg 1mL



Ocublu®-Try Trypan Blue is a sterile intra-ocular solution which stains the anterior lens capsule to visualize the capsulorhexis during cataract surgery.

FEATURES

- Rapid and easy application
- Improved visualization of the anterior lens capsule
- Excellent distinction of the capsulorhexis margin
- Reduced risk of incomplete capsulorhexis
- Reduced surgical time
- Steam sterilized

Technical Data

OCUBLU® ILM Blue

OCUBLU® ILM/ERM Blue

pH	6.0 - 8.0	6.0 - 8.0
Osmolality	270 - 400 mOsm/kg	270 - 400 mOsm/kg
Storage	10-30 °C	10-30 °C
Packing	1 ml in vial / 5 per box 1 ml in syringe / 5 per box	1 ml in vial / 5 per box 1 ml in syringe / 5 per box



Ocublu® ILM Blue is used to selectively stain and visualize Internal Limiting Membrane (ILM), facilitating removal of the tissue and reducing the risk of retinal damage.

Ocublu® ILM/ERM Blue has selective affinity for both Epiretinal Membrane (ERM) and Internal Limiting Membrane (ILM) which allows surgeons to clearly differentiate ILM, ERM and retina.

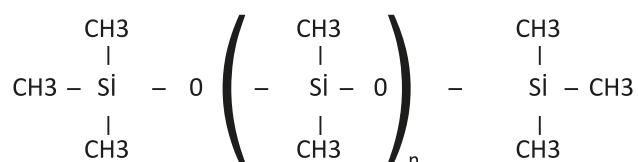
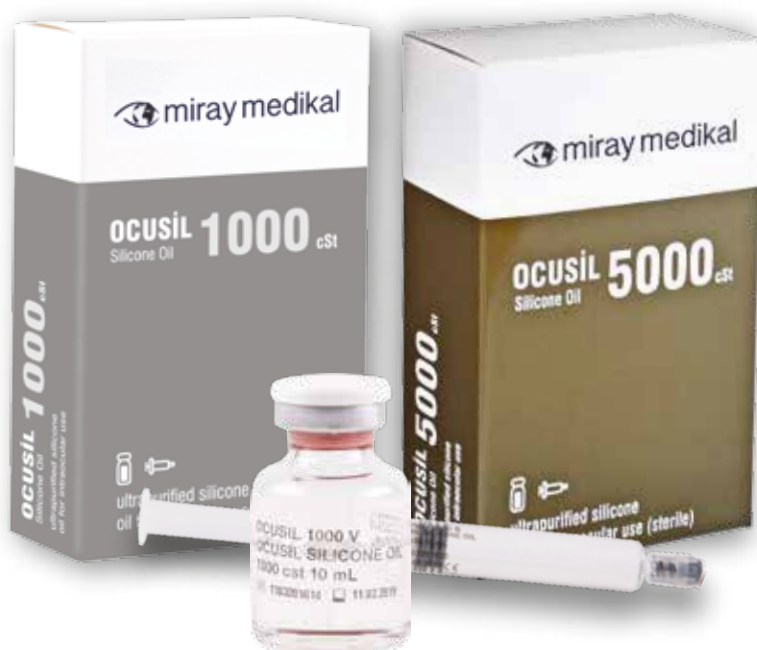
FEATURES

- Good Staining and better contrast
- Fast sinking, maximized contact area with the tissue
- Biocompatible
- Steam Sterilized

Technical Data

OCUSIL® SILICONE OIL

Viscosity	1000 cSt / 1300 cSt / 2200 cSt / 5000 cSt / 5500 cSt
Refractive index	1,401 - 1,405 at 25 °C
Specific Gravity	0,973 g/cm³ at 25 °C
Packing	10 ml in vial 15 ml in vial 10 ml in syringe



Ocusil® Silicone Oil is a medical grade purified silicone oil intended for prolonged tamponade after surgical treatment for severe retinal detachment.

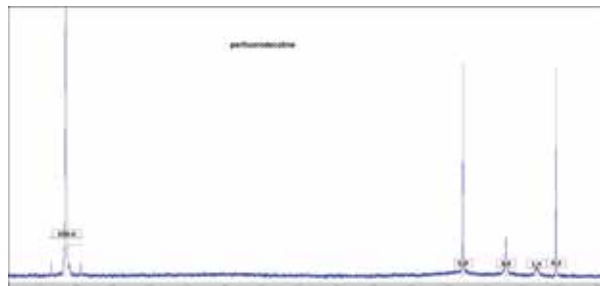
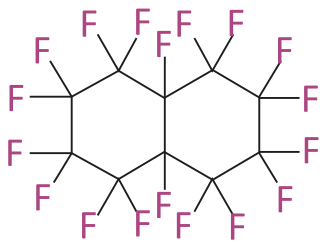
FEATURES

- Excellent chemical purity
- Reliable long term tolerance
- High emulsification resistance
- Reduced incidence of complications
- Steam Sterilized

Technical Data

OCUDEKA® DECALINE

Formula	C ₁₀ F ₁₈
Density	1,908 g/cm ³ at 20 °C
Refractive index	1,313 at 20°C
Content	100 % fluorinated perfluorocarbon
Boiling point	142 °C
Packing	5 ml in vial 7 ml in vial



OcuDeKa® Decaline

100% Fluorinated Perfluorocarbon Liquid For Retinal Surgery

FEATURES

- Biocompatible
- Chemically and physiologically inert
- Efficient retinal unfolding and stabilization
- High specific density
- Steam Sterilized

HPMCGEL® 2.0%



FEATURES

- Highly viscous HPMC solution
- For use as a contact fluid during gonioscopy
- Forms a protective layer onto the eye surface during fundus examination with a lens
- Optimum protection of eye surface
- For external use only

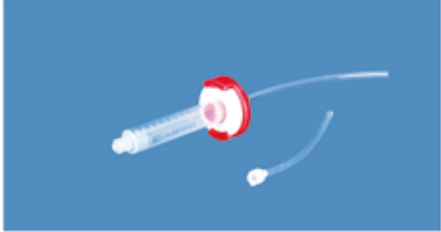
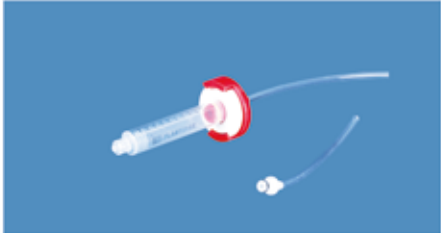
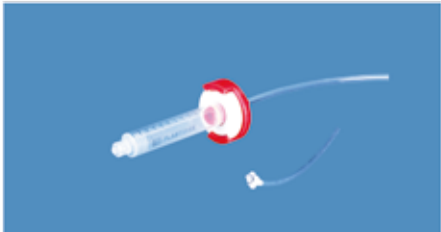
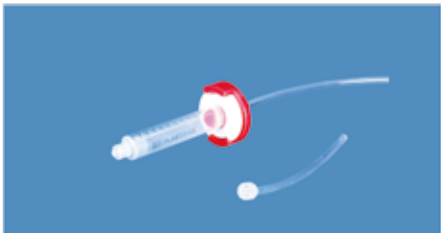
OCUSIL® PROSTHETIC EYE CARE SOLUTION



FEATURES

- Medical grade Silicone Oil
- For use as a lubricant for artificial eyes
- Reduced drainage and friction between the eyelids and the prosthetic surface
- Relieves irritation and discomfort
- Makes the artificial eye looking more natural and shiny

OCUSIL® VISCOUS FLUID INJECTION & EXTRACTION KIT

 VISCOUS FLUID INJECTION & EXTRACTION KIT	VFI/VFE Viscous Fluid Injection & Extraction Kit Connector Type	Manufacturer	Vitrectomy System
	Compatible connector with Dorc, Alcon (VFI-1)	DORC ALCON	Eva Accurus Constellation
	Compatible connector with Oertli (VFI-2)	OERTLI	Orbit Faros 0S3 0S4
	Compatible connector with Bausch&Lomb (VFI-3)	BAUSCH&LOMB	Millenium Stellaris
	Compatible connector with Dorc (Harmony) (VFI-4)	DORC DORC OERTLI FRITZ RUCK OPTICON STORZ	Harmony Associate SP3 Pentasys Antares Premiere

Technical Data

CROWNPLEX® CLASSIC 20 mg

CROWNPLEX® CLASSIC PLUS 32 mg

Sodium hyaluronate	1.0%	1.6%
Molecular Weight	1.1 - 2.6 million daltons	1.1 - 2.6 million daltons
Viscosity	20 - 60.000 mPa.s	80 - 140.000 mPa.s
Osmolality	270 - 400 mOsm/kg	270 - 400 mOsm/kg
Storage	2-25 °C	2-25 °C
pH	6.8-7.6	6.8-7.6
Origin	Biofermentation	Biofermentation
Volume	2.0 mL	2.0 mL

Composition (2 ml)

Sodium hyaluronate	20.000 mg	32.000 mg
Sodium chloride	17.000 mg	17.000 mg
Disodium hydrogen phosphate	1.126 mg	1.126 mg
Sodium dihydrogen phosphate	0.090 mg	0.090 mg
Water for injection	q.s	q.s



STERILE SODIUM HYALURONATE SOLUTION FOR INTRA-ARTICULAR INJECTION (ORTHOPEDICS)

CrownFlex® is a sterile, non pyrogenic viscoelastic solution containing high-quality sodium hyaluronate derived from bio-fermentation.

CrownFlex® is indicated on the patients with degenerative joint disease (osteoarthritis) for reducing mechanical stress on the joint and increasing the joint mobility due to its reliable lubrication and shock absorbing properties.

Technical Data

CROWN FLEX® ULTRA 40 mg

CROWN FLEX® ULTRA PLUS 60 mg

Sodium hyaluronate	2.0%	3.0%
Molecular Weight	1.1 - 2.6 million daltons	1.1 - 2.6 million daltons
Viscosity	90 - 150.000 mPa.s	150 - 250.000 mPa.s
Osmolality	270 - 400 mOsm/kg	270 - 400 mOsm/kg
Storage	2-25 °C	2-25 °C
pH	6.8-7.6	6.8-7.6
Origin	Biofermentation	Biofermentation
Volume	2.0 mL	2.0 mL

Composition (2 ml)

Sodium hyaluronate	40.000 mg	60.000 mg
Sodium chloride	17.000 mg	17.000 mg
Disodium hydrogen phosphate	1.126 mg	1.126 mg
Sodium dihydrogen phosphate	0.090 mg	0.090 mg
Water for injection	q.s	q.s



FEATURES

- Easy controlled injection
- Reliable lubrication and shock absorbing properties
- Reduced pain and improved joint mobility following the intra-articular injection
- Highly effective to improve the quality of the joint's lubrication
- Steam sterilized



 miray medikal



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