

CONTAFLEX GM3

Special Attributes:

Nature: Terpolymer based on glycerol methacrylate

The GM3 range of materials is available in two water contents 49% and 58%, based on high purity glycerol methacrylate, these materials are remarkably easy to machine. Resultant lenses are extremely durable, resilient to protein build up and can be used for a variety of wearing regimens.

Material Characteristics:

Properties	Contaflex GM3 49%	Contaflex GM3 58%
Classification	Filcon I 1	Filcon II 1
USAN	Acofilcon B	Acofilcon A
Ionic or non-ionic	Non-Ionic	Non-Ionic
Swell Factor	1.29 at 20°C	1.38 at 20°C
Water Content	50% at 20°C by refractometer 48% at 20°C by weight	59% at 20°C by refractometer 57.5% at 20°C by weight
Refractive Index	1.522 Dry 1.416 Hydrated	1.523 Dry 1.402 Hydrated
Light Transmission	>94.9%	>93.4%
Density	1.226g/cm ³ Dry 1.142g/cm ³ Hydrated	1.222g/cm ³ Dry 1.103g/cm ³ Hydrated
Oxygen Permeability (ISO) x10 ⁻¹¹ (cm ² /sec) [mlO ₂ /(ml x mmHg)]	15.9	25.5
Tensile Strength	0.6MPa	0.4MPa
Elongation to break	212%	196%
Hardness (Shore D)	87	88
Handling tints	Blue	Blue
Diameter	12.70mm	12.70mm
Thickness	5.00mm	5.00mm

Please note: These are typical values. Always check the certificate of compliance supplied with the goods for the actual values of the batch.



Diamond Tooling:

Tooling	Radius (mm)
Rough	0.30 – 0.50mm
Fine	0.30 – 0.50mm

Machining Recommendations:

Lathe type	RPM	Bulk cut	Fine Cut
Manual	7,000	0.50 – 0.7mm	0.05mm
CNC	7,000	0.50 – 0.7mm	0.05mm
Air Bearing	10,000	0.50 – 0.7mm	0.03 – 0.05mm

Environment Control:

For best manufacturing conditions Contamac recommends 19-23°C with a relative humidity of 45% - 60%

Polishing:

The recommended polishing compound is Contapol 2 with a spindle speed of 3,500 rpm and weight of 240gms. With the above machining recommendations polishing should require a maximum of 30 seconds.

Hydration:

Hydration of GM3 materials is best performed in buffered saline with a PH of 6.8 – 7.3.

Manufacturing Consumables:

- Contapol 2 polishing Compound
- C-15 White Blocking Wax
- Kemdent Blocking Wax
- C-18B White Brushed Cotton
- C-18C Beige Microfibre Cloth

Accessories:

- Glass Vials
- Silicone Bungs
- Flip Tear Crimp Top Seals
- Horseshoe Crimp Top Seals
- Steel Hand Crimper
- Plastic Tweezers
- Shrink Wrap Sleeves

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