

## TECHNICAL DATA

GM Advance represents an evolutionary advance on the properties of other GMA-based soft lens materials. It achieves high manufacturing yields, while its exceptional on-eye stability, water retention and durability provide patient satisfaction.

**Please Note:** Regulatory requirements and standards vary from country to country, and are constantly evolving. As a global company we want to be sure we provide you with detailed technical information, specific to your market, where appropriate, rather than using the condensed and simplified technical information on the website. If you need to use technical data for quality paperwork, or for a regulatory submission, please contact your account manager to obtain this precise and detailed information to support your regulatory requirements, we will be happy to help.

### Material Characteristics

PROPERTY	49%	58%
Oxygen Permeability (ISO) at 35°C (Barrer)	16	25
Water Content at 20°C by Weight (%)	49	58
Swell Factor at 20°C	1.27	1.36
Refractive Index at 20°C - Hydrated	1.42	1.40
Refractive Index at 20°C - Dry	1.51	1.52
Modulus - Elasticity (MPa)	0.45	0.28
Tensile Strength (MPa)	0.70	0.35
Elongation to Break (%)	301	253
UV Blocker	Available	Available
Classification (ANSI)	Acofilcon B I 2	Acofilcon A II 2
Classification (ISO)	Acofilcon B 1 (16) [49%]	Acofilcon A 2 (25) [58%]
USAN	Acofilcon B	Acofilcon A

Please note: Some values may have been rounded for presentation purposes. Please contact your account manager for further details.

### Manufacturing Consumables

High Melt Blocking Wax	Delrin Polishing Cup
Blocking Kement Sticky Wax	Delrin Polishing Sponge
Contapol 1 Polish	Grey Roller Sponge
Contapol 2 Polish	Brushed Cotton Polishing Cloth

### Accessories

Tweezers	Flip Tear Up Seal
Glass Vial	Double Soft Lens Mailers
Siloprene Bung	DMV Soft Lens Handler/Remover
Tear Off Aluminium Seal	

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## Material and Lathing Recommendations - 49%

LATHE FUNCTION	DAC INCHES/MINUTE	REM μ/SECOND	OPTOFORM mm/MINUTE
Rough Cut Amount (mm)	0.40 (0.30 - 0.50)	0.40 (0.30 - 0.50)	0.40 (0.30 - 0.50)
Rough Feed Rate	2.5 (2 - 3)	1050 (833 - 1250)	63 (50 - 75)
Rough Spindle Speed	9000 (8000 - 10000)	9000 (8000 - 10000)	9000 (8000 - 10000)
Rough Cut Amount (mm) (Last Pass)	0.15 (0.10 - 0.20)	0.15 (0.10 - 0.20)	0.15 (0.10 - 0.20)
Rough Feed Rate (Last Pass)	0.80 (0.80 - 1.2)	333 (333 - 500)	20 (20 - 30)
Rough Spindle Speed (Last Pass)	9000 (8000 - 9500)	9000 (6500 - 9500)	9000 (8000 - 9500)
Final Feed Rate	0.60 (0.4 - 0.8)	250 (166 - 333)	15 (10 - 20)
Final Spindle Speed	8500 (8000 - 9500)	8500 (8000 - 8000)	8500 (8000 - 9500)
Final Cut Amount (mm)	0.05 (0.05 - 0.10)	0.05 (0.05 - 0.10)	0.05 (0.05 - 0.10)

## Material and Lathing Recommendations - 58%

LATHE FUNCTION	DAC INCHES/MINUTE	REM μ/SECOND	OPTOFORM mm/MINUTE
Rough Cut Amount (mm)	0.40 (0.30 - 0.50)	0.40 (0.30 - 0.50)	0.40 (0.30 - 0.50)
Rough Feed Rate	2.5 (2 - 3)	1050 (833 - 1250)	63 (50 - 75)
Rough Spindle Speed	9500 (9000 - 10000)	9500 (9000 - 10000)	9500 (9000 - 10000)
Rough Cut Amount (mm) (Last Pass)	0.15 (0.10 - 0.20)	0.15 (0.10 - 0.20)	0.15 (0.10 - 0.20)
Rough Feed Rate (Last Pass)	0.80 (0.80 - 1.2)	333 (333 - 500)	20 (20 - 30)
Rough Spindle Speed (Last Pass)	9500 (8500 - 10000)	9500 (8500 - 10000)	9500 (8000 - 10000)
Final Feed Rate	0.60 (0.4 - 0.8)	250 (166 - 333)	15 (10 - 20)
Final Spindle Speed	9000 (8000 - 10000)	9000 (8000 - 10000)	9000 (8000 - 10000)
Final Cut Amount (mm)	0.05 (0.05 - 0.10)	0.05 (0.05 - 0.10)	0.05 (0.05 - 0.10)

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### 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 240 grams. With the above machining recommendations polishing should require a maximum of 30 seconds.

### Hydration

Hydration of GM Advance materials is best performed in buffered saline, with a pH of 6.8 – 7.5.