

TECHNICAL DATA

DEFINITIVE

Special Attributes

Definitive is a range of silicone hydrogel materials developed specifically to be lathe cut by manufacturers of specialty soft contact lenses. The oxygen permeabilities of the Definitive range of materials are the highest available to manufacturers of lathe cut hydrogel materials and is achieved with an exclusive blend of fluorosilicone and hydrophilic monomers. Their Dks are significantly higher than conventional hydrogels and therefore provide improved corneal health. The polymer compositions have been optimised to ensure that the Definitive materials can be machined in the same manner as any other hydrogel material. They have similar moduli to comparative water content hydrogel materials and so do not suffer from the mechanical complications associated with other silicone hydrogels. Lenses of excellent optical performance and outstanding on-eye comfort can be produced using the Definitive range of materials. The variety of properties contained within the Definitive range of products make Definitive materials suitable for producing the widest range of lens designs.

Material Characteristics

PROPERTY	DEFINITIVE 50	DEFINITIVE 65	DEFINITIVE 74
Classification	Filcon V3	Filcon V4	Filcon V3
FDA Approved	No	Yes	Yes
USAN	-	Safrofilcon A	Efrofilcon A
Ionic or Non-Ionic	Non-Ionic	Non-Ionic	Non-Ionic
Oxygen Permeability (ISO) at 35°C (barrers)	50	62	60
Oxygen Transmissibility (ISO) at 35°C *	62.5	77.5	75
Swell Factor at 20°C	1.29	1.45	1.615
Water Content at 20°C by Weight	50 %	65 %	74 %
Refractive Index at 20°C Hydrated	1.406	1.385	1.375
Refractive Index at 20°C Dry	1.480	1.485	1.510
Light Transmission at 380-780nm	97.5 %	98.5 %	99 %
Tensile Strength	0.95 MPa	1 MPa	0.39 MPa
Elongation to Break	290 %	250 %	180 %
Modulus	0.60 MPa	0.75 MPa	0.35 MPa

*0.08ct x 10⁻⁹ [cm²/sec][ml O₂/(ml x mm Hg)]

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PROPERTY	DEFINITIVE 50	DEFINITIVE 65	DEFINITIVE 74
Shore D Hardness	81	83	84
Handling Tint	Clear	Clear, Blue	Clear, Blue
Diameter	12.70 mm	12.70 mm	12.70 mm
Thickness	Standard	Standard	Standard

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

Reference

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