



HYDROGEL CATALOGUE



2025

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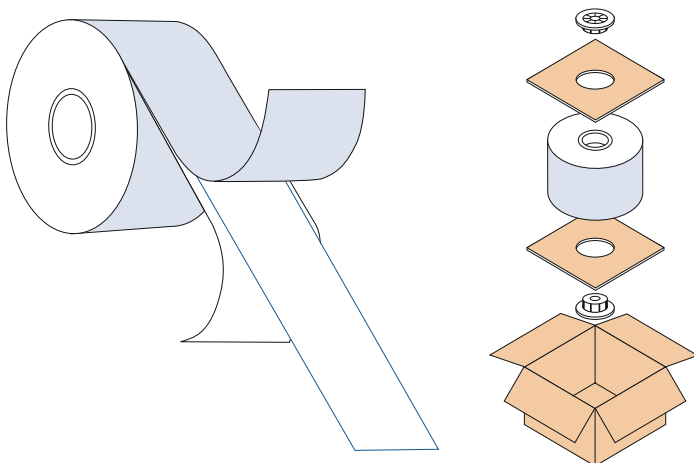


Quality Manufacturing

Axelgaard Manufacturing's mission is to deliver high quality and consistent hydrogels. Our AmGel® brand patented hydrogels are used in products worldwide for varied applications.

Ground-breaking research and development, advanced industry expertise, and state-of-the-art equipment make us one of the most sophisticated hydrogel manufacturers in the world.

Axelgaard is compliant with Good Manufacturing Practices (GMP) and ISO 13485:2016 MDSAP.



We invite you to learn more, connect, and collaborate:
www.axelgaard.com • support@axelgaard.com

Complete TDS documentation is available online:
www.axelgaard.com/documents

Our products are patent protected.

For more information, see:
www.axelgaard.com/patentlist

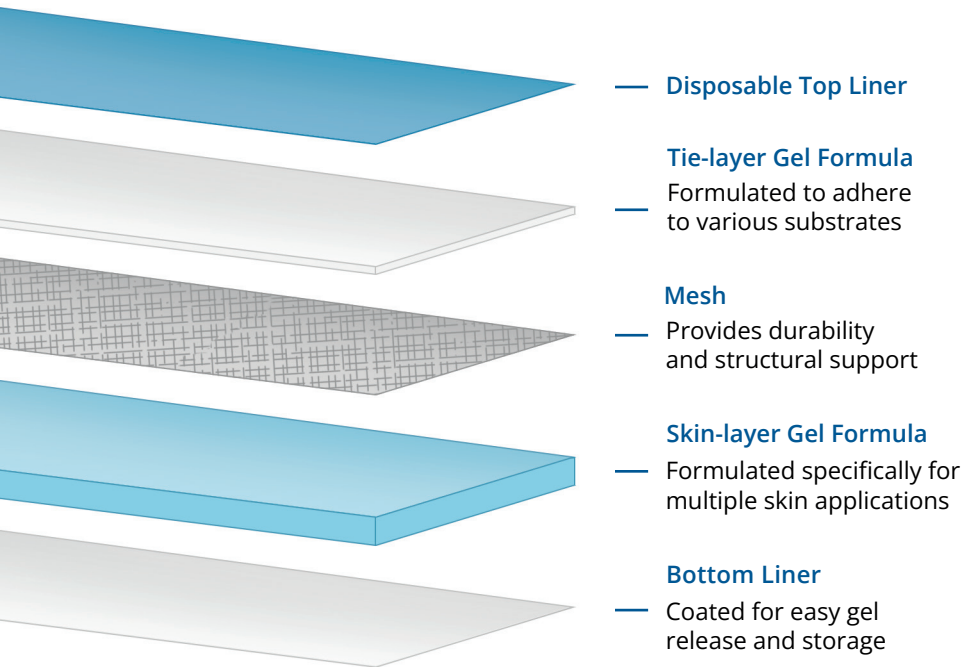
AmGel® Hydrogels

Axelgaard manufactures a full line of AmGel® hydrogels in bulk rolls for a variety of applications such as stimulation, sensing, defibrillation, surgical grounding pads, iontophoretic buffered return electrodes, skin care, wound care, and fixation.

Custom hydrogel formulations both with and without infused ingredients are also available.

Hydrogel Technology

Our patented multi-layer adhesive hydrogel formulations eliminate the performance problems associated with single-layer hydrogels. This multi-layer approach ensures maximum durability, longevity, and performance.



The above depiction of our multi-layer hydrogel is an illustrative approximation and is not true to size, thickness, color, or texture.

Services and Support

Axelgaard offers services and support tailored to the customer's needs.

- Engineering and R&D teams with the experience and technical ability to make your specialty product a reality.
- Dispense-And-Cure standard and custom formulated hydrogel for wearable biomedical devices.
- Slitting capabilities to suit customers' specific requirements. The minimum slit width is 0.75" (2 cm).
- Standard and custom formulated hydrogel pads and tapes for medical products, skin fasteners, cosmetic skincare products, breaching, and more.
- Hydrogel formulations can be customized both with and without infused ingredients.

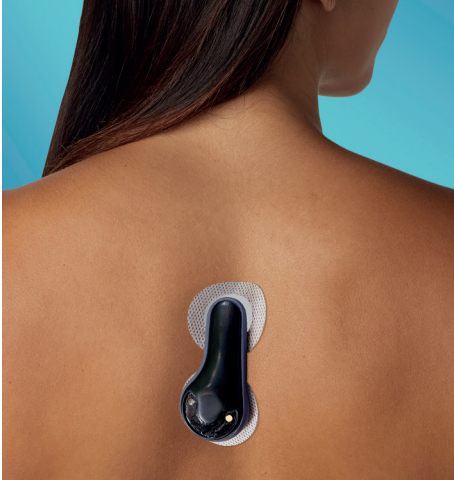


AG500 Series Hydrogel

Dermal Fastener - High Adhesive Tack

Designed and formulated for adhering a product repeatedly to the skin. AG500 hydrogels provide a “quick grab” and excellent restick capabilities.

Part #	Gel Thickness	Usable Width	Roll Length
AG544	44 mils (1.1 mm)	9" (22.9 cm)	250' (76 m)



Features

Uses: Fastening

Top Release Liner: Width - 9.75" (24.8 cm) / 2 mil (0.05 mm) LDPE

Bottom Release Liner: Width - 10" (25.4 cm) / 5 mil (0.13 mm) PET

Compatible Substrate: Variety of substrates

Volume Resistivity [Ω .cm]: Not Applicable

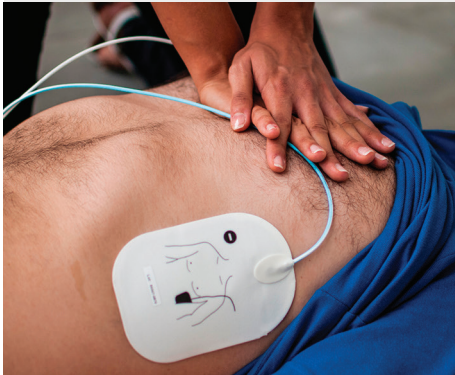
Process Shelf Life: Non-Slit 1 Year / Slit 6 Months

AG600 Series Hydrogel

Sensing - Medium Adhesive Tack

Designed and formulated for use in electrocardiogram (ECG/EKG), electromyogram (EMG), defibrillation, and wireless monitoring applications. AG600 hydrogels have excellent re-adhesion capabilities for skin interface.

Part #	Gel Thickness	Usable Width	Roll Length
AG625	25 mils (0.6 mm)	9" (22.9 cm)	300' (91 m)
AG635	35 mils (0.9 mm)	9" (22.9 cm)	300' (91 m)
AG640	40 mils (1.0 mm)	9" (22.9 cm)	250' (76 m)



Features

Uses: Sensing, Defibrillation, Stimulation

Top Release Liner: Width - 9.75" (24.8 cm) / 2 mil (0.05 mm) LDPE

Bottom Release Liner: Width - 10" (25.4 cm) / 5 mil (0.13 mm) PET

Compatible Substrate: Silver inks, conductive carbon films

Volume Resistivity [Ω .cm]: AG625 - 400* (≤ 600)

AG635 - 350* (≤ 500)

AG640 - 340* (≤ 450)

Process Shelf Life: Non-Slit 1 Year / Slit 6 Months

Not compatible with foils or metals.

** Typical values for Volume Resistivity*

AG700 Series Hydrogel

Stimulation - Medium Adhesive Tack

Designed and formulated for TENS and muscle stimulation applications. AG700 hydrogels offer optimal and durable bonding to the substrate with multiple applications to skin.

Part #	Gel Thickness	Usable Width	Roll Length
AG735	35 mils (0.9 mm)	9" (22.9 cm)	300' (91 m)



Features

Uses: Stimulation

Top Release Liner: Width - 9.75" (24.8 cm) / 2 mil (0.05 mm) LDPE

Bottom Release Liner: Width - 10" (25.4 cm) / 5 mil (0.13 mm) PET

Compatible Substrate: Silver inks, conductive carbon films, conductive fabrics

Volume Resistivity [Ω .cm]: 1100* (≤ 1500)

Process Shelf Life: Non-Slit 18 months / Slit 6 Months

Designed for use with conductive carbon film.

** Typical values for Volume Resistivity*

AG800 Series Hydrogel

Buffer - Medium Adhesive Tack

Designed specifically for iontophoresis buffered return electrodes. AG800 hydrogels offer a stable environment to prevent skin burns and irritation.

Part #	Gel Thickness	Usable Width	Roll Length
AG835	35 mils (0.9 mm)	9" (22.9 cm)	300' (91 m)



Features

Uses: Direct current / Iontophoresis

Top Release Liner: Width - 9.75" (24.8 cm) / 2 mil (0.05 mm) LDPE

Bottom Release Liner: Width - 10" (25.4 cm) / 5 mil (0.13 mm) PET

Compatible Substrate: Carbon films

Volume Resistivity [Ω .cm]: 24,000* (15,000-30,000)

Process Shelf Life: Non-Slit 1 Year / Slit 6 Months

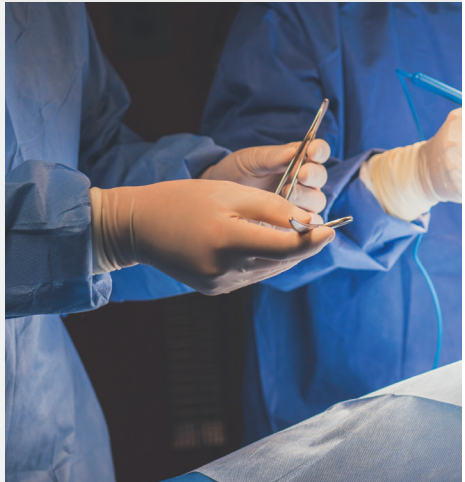
* *Typical values for Volume Resistivity*

AG900 Series Hydrogel

Grounding - Medium Adhesive Tack

Specifically designed for use in high frequency grounding pads. AG900 hydrogels feature excellent cohesion, adhesion, and offer corrosion resistance to aluminum.

Part #	Gel Thickness	Usable Width	Roll Length
AG936	36 mils (0.9 mm)	9" (22.9 cm)	300' (91 m)



Features

Uses: Surgical grounding pads

Top Release Liner: Width - 9.75" (24.8 cm) / 2 mil (0.05 mm) LDPE

Bottom Release Liner: Width - 10" (25.4 cm) / 5 mil (0.13 mm) PET

Compatible Substrate: Aluminum foil

Volume Resistivity [Ω .cm]: 4200* (≤ 7000)

Process Shelf Life: Non-Slit 1 Year / Slit 6 Months

* Typical values for Volume Resistivity

AG2500 Series Hydrogel

Multi-Use - High Adhesive Tack

Premium hydrogels designed and formulated for a variety of uses, including sensing, stimulation, and fastener applications. These soft and elastic hydrogels exhibit excellent restick.

Part #	Gel Thickness	Usable Width	Roll Length
AG2530	30 mils (0.8 mm)	9" (22.9 cm)	300' (91 m)
AG2540	40 mils (0.9 mm)	9" (22.9 cm)	250' (76 m)
AG2550	50 mils (1.3 mm)	9" (22.9 cm)	250' (76 m)



Features

Uses: Sensing, Stimulation, Fastening

Top Release Liner: Width - 9.75" (24.8 cm) / 2 mil (0.05 mm) LDPE

Bottom Release Liner: Width - 10" (25.4 cm) / 5 mil (0.13 mm) PET

Compatible Substrate: Silver inks, conductive carbon films

Volume Resistivity [Ω .cm]: AG2530 - 625* (≤ 1000)

AG2540 - 600* (≤ 1000)

AG2550 - 550* (≤ 1000)

Process Shelf Life: Non-Slit 18 Months / Slit 6 Months

Not compatible with foils or metals.

** Typical values for Volume Resistivity*

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