Blake
Medical Distribution

MADE IN CANADA



DURABLE · COMFORTABLE · DISINFECT-ABLE · FRICTION & SHEAR REDUCING · INCREASES SIT TIMES · MICROCLIMATE MANAGEMENT · PRESSURE REDISTRIBUTING · VIBRATION DAMPENING · WON'T PUNCTURE

WHEELCHAIR SEAT CUSHIONS

SIT HAPPY

THE GEO-MATRIX™ SEATING SYSTEM

Immersive Comfort * Durable * Low Maintenance * Fluid-Proof * No Calibration * Dynamic

HOW DOES GEO-MATRIX™ GEL WORK?

Geo-Matrix™ gel columns support a certain amount of weight. When this threshold has been met, the columns collapse to allow for gentle immersion.

This immersion increases the surface area of the user's footprint or "bumprint", which greatly reduces pressure. This increase in surface area also improves blood flow to stimulate wound healing.

Peak pressure points are largely reduced through the columns ability to load share. As bony prominences contact the columns, the load is distributed through their neighbouring columns.

This load share ensures more contact points to once again create a large area for redistribution. Multiple Geo-Matrix™ gel columns create segmentation. This segmentation greatly reduces shear by decreasing the interface pressure when users move or transfer across the surface.

Along with its pressure redistribution and shear reduction qualities, the Geo-Matrix™ gel has superior vibration dampening capabilities. The combination of dry polymer gel paired with the geometry of the gels columns, results in unique vibration dampening capabilities.

All wheelchair users, specifically those using powerchairs, undergo continuous vibration. This whole-body vibration (WBV) can lead to; muscle fatigue, degenerative disc disease, hear murmurs and digestive problems, among many others.

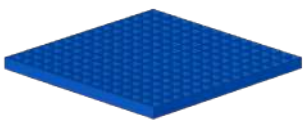
GEO-MATRIX™ vs. The Competition

	All Gel Geo-Matrix™ **Cushions**	**Foam/Gel** Geo-Matrix™ **Cushions**	Competitor's Foam Cushions	Air Filled Cushions
Easy to disinfect /Wipeable	✓	✓		✓
Machine Washable	✓			
Proven pressure redistribution for prevention & treatment of Stage I-IV wounds	✓	✓		✓
Worry-free comfort - No risk of punctures, leaks or oozing	✓	✓	✓	
Calibration Free	✓	✓	✓	
On site customization	✓			
Pressure management not affected by temperature	✓	✓		
Shear reduction	✓	✓		✓
Vibration dampening	✓	✓		
Canadian Made	✓	✓		
2 fluid-proof covers included (standard)	✓	✓	✓	
Lightweight			✓	✓
Effective no matter the cushions orientation (even upside down)	✓			
Postural Stability		✓	✓	
Cushion has shape or contour		✓	✓	

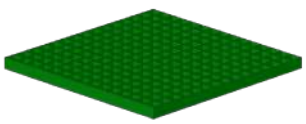
GEO-MATRIX™ Gel Sheets

DID YOU KNOW?
You can use Geo-Matrix™ gel sheets independently in these applications:

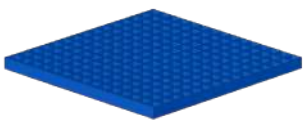
- Custom seating
- Bath tub pads
- Lift chair pads
- Vehicle seating
- Backrests
- Pillows
- Vibration dampening base layer
- Custom wheelchair accessories
- Hand contractors
- Commode pads
- Endless possibilities
- Heel pads



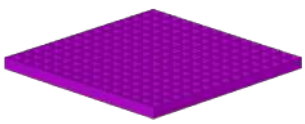
Pillowtop - Softest
¾”x24”x28”,
GRSPT(+size),
GRSPTS(+size)*



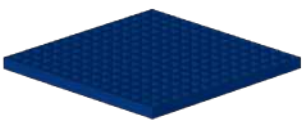
Green - Medium
1”x20”x25”,
GRSG(+size),
GRSGS(+size)*



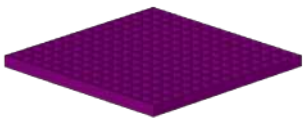
Blue - Firm
1”x20”x25”,
GRSB(+size),
GRSBS(+size)*



Purple - Firmest
1”x20”x25”,
GRSP(+size),
GRSPS(+size)*



Blue Mattress – Medium
1.5”x20”x25”, GRSBM(+size)



Purple Mattress – Firm
1.5”x20”x25”, GRSPM(+size)

Use mattress gel when deeper immersion is required for single layer solutions

Adhering your gel?

Get it scrimmed! **Scrim** is a lycra material that is laminated directly onto your sheet of Geo-Matrix™ Gel. The **Scrim** makes the gel sheet capable of being adhered to any foam surface.

Need more air flow?

If you require to have more air flow in your seating system, request your sheet **Scraped**. This means that the back layer of gel will be removed from your sheet, exposing only the gel columns.

How to Order

Example:
Pillow top sheet with both scrim and scraped backing =
(GRSPT**SSP**2428)
S = Scrimed **SP** = Scraped

Blake Medical Cushion Covers

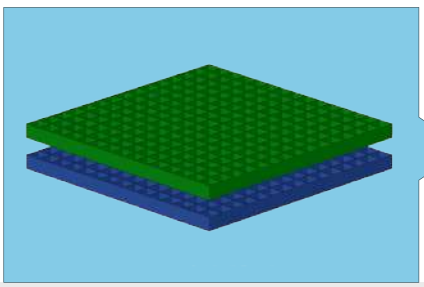
Fluid-Proof and Easily Cleaned



	Outer Cover	Inner Cover
Wipeable		✓
4 way stretch	✓	✓
Machine Washable	✓	✓
Infection Control Lip Over Zipper	✓	
Customizable	✓	✓
Fluid Proof	✓	✓
E-Z Pull Zipper	✓	
Non-Slip Base	✓	
Antimicrobial	✓	✓
Anti-bacterial	✓	✓
Anti-Fungal	✓	✓
Meets Cal 117 Bulletin	✓	✓
Latex free	✓	✓

GEO-MATRIX™ Gel Cushions

***Vibration Dampening *Pressure Redistributing * Machine Washable**



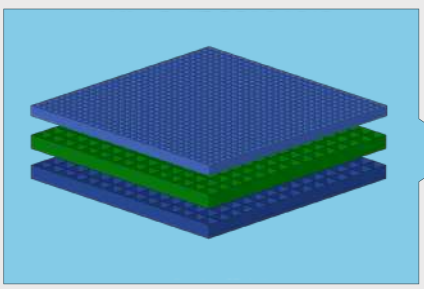
Bronze GB(+Size)

Weight Cap: 200lbs **Cushion Height:** 2”

Construction: 2 gel layers; Blue (bottom), Green (top)

Indications:

- Active users
- Low risk users
- Vibration control
- Client has the ability to weight shift



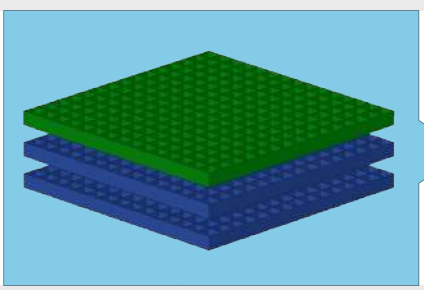
Silver GS(+Size)

Weight Cap: 200lbs **Cushion Height:** 2.75”

Construction: 3 gel layers; Blue (bottom), Green (middle), Pillowtop (Top)

Indications:

- Prevention & treatment Stage I-IV pressure injuries
- Clients at high risk of skin breakdown or with existing wounds
- Superior vibration control
- Client incapable of repositioning themselves
- Commonly used with power or tilt chairs
- Often used in long term care where frequent cleaning is required
- Can be customized by user or caretaker with ease
- Shear reduction



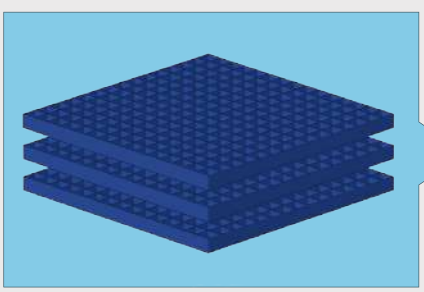
Gold GG(+Size)

Weight Cap: 250lbs **Cushion Height:** 3”

Construction: 3 gel layers; Blue (bottom), Blue (middle), Green (top)

Indications:

- Prevention & treatment Stage I-IV pressure injuries
- Clients at high risk of skin breakdown or with existing wounds
- Superior vibration control
- Client incapable of repositioning themselves
- Commonly used with power or tilt chairs
- Often used in long term care where frequent cleaning is required
- Can be customized by user or caretaker with ease
- Shear reduction



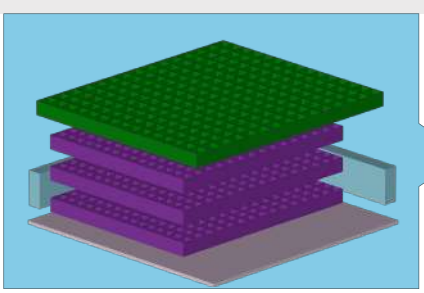
Gold+ GG+(+Size)

Weight Cap: 300lbs **Cushion Height:** 3”

Construction: 3 gel layers; Blue (bottom), Blue (middle), Blue (top)

Indications:

- Prevention & treatment Stage I-IV pressure injuries
- Clients at high risk of skin breakdown or with existing wounds
- Superior vibration control
- Client incapable of repositioning themselves
- Commonly used with power or tilt chairs
- Often used in long term care where frequent cleaning is required
- Can be customized by user or caretaker with ease
- Shear reduction



Bold GBO(+Size)

Weight Cap: 600lbs **Cushion Height:** 4.25”

Construction: Closed cell foam base followed by 4 gel layers; Purple (bottom), Purple (middle), Purple (Middle). Green (top). All purple layers are surrounded by a sturdy foam boarder.

Indications:

- Prevention & treatment Stage I-IV pressure injuries
- Superior vibration dampening
- Client may have limitations in weight shifting
- Commonly used on power chairs
- Shear reduction
- Durable option for Bariatric clients looking for a flat immersive cushion

Standard sizes: All Dimensions available.

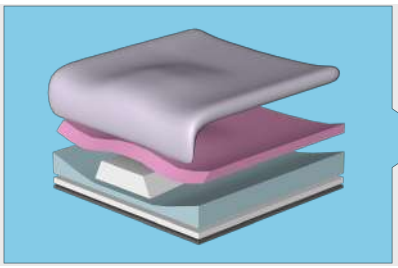
We stock non-custom sizes too!”

Our cushions come in the following standard sizes:

16x16 • 16x18 • 16x20 • 18x16 • 18x18 • 18x20 • 20x16 • 20x18 • 20x20 • 22x16 • 22x18 • 22x20

GEO-MATRIX™ Foam & Gel

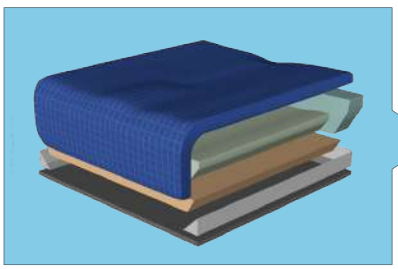
***Postural Support * Pressure redistributing * Lightweight**



Zentury Z(+Size) **Weight Cap:** 275lbs **Cushion Height:** 4”

Construction: Dual high density foam base, with a high impact memory foam core and a gel infused memory foam topper.

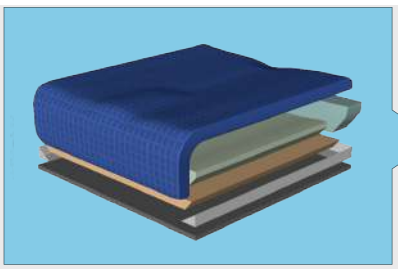
Indications:
- Extra postural support
- Wound prevention
- Active users
- Lightweight
- Heat reduction



Hybrid GH(+Size) **Weight Cap:** 275lbs **Cushion Height:** 3.5”

Construction: Closed cell foam base, dual high-density foam core with a firm sacral shelf and pillowtop gel topper

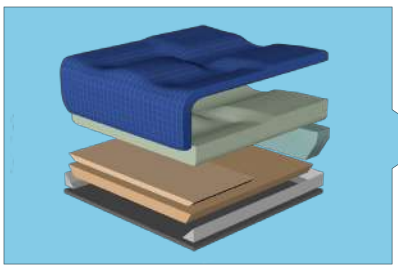
Indications:
- Moderate postural support
- Prevention & treatment Stage I-IV pressure injuries
- Ideal for clients who self transfer
- Shear reduction
- Moderate vibration control



Hybrid Low Pro GHLP(+Size) **Weight Cap:** 250lbs **Cushion Height:** 2.5”

Construction: Closed cell foam base, dual high-density foam core with a firm sacral shelf and pillowtop gel topper

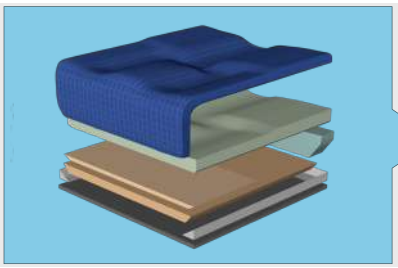
Indications:
- Moderate postural support
- Clients with existing skin issues or at moderate risk for skin breakdown
- Ideal for clients who self transfer
- Shear reduction
- Moderate vibration control
- Good alternative to the Hybrid if a low floor to seat height is required



Hybrid Deep GHD(+Size) **Weight Cap:** 275lbs **Cushion Height:** 3.5”

Construction: Closed cell foam base, dual high-density foam core with a firm ischial and sacral shelf and pillowtop gel topper

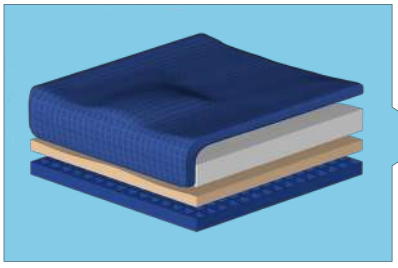
Indications:
- Robust postural support
- Prevention & treatment Stage I-IV pressure injuries
- Ideal for clients who slump or slide
- Shear reduction
- Moderate vibration control
- Great for boney ischial tuberosities
- Commonly used in tilt chairs



Hybrid Deep Low Pro GHDLP(+Size) **Weight Cap:** 250lbs **Cushion Height:** 2.5”

Construction: Closed cell foam base, dual high-density foam core with a firm ischial and sacral shelf and pillowtop gel topper

Indications:
- Robust postural support
- Clients with existing skin issues or at moderate risk for skin breakdown
- Ideal for clients who slump or slide
- Shear reduction
- Moderate vibration control
- Great for boney ischial tuberosities
- Good alternative to the Hybrid Deep if a low floor to seat height is required



Platinum GP(+Size) **Weight Cap:** 275lbs **Cushion Height:** 3.75”

Construction: A base layer of gel with a dual density foam core and a pillow top gel overlay

Indications:
- Moderate postural support
- Prevention & treatment Stage I-IV pressure injuries
- Superior vibration control
- Shear reduction
- Ideal for power and tilt chairs

Bariatric Available

Platinum Plus
GPB(+Size)
Weight Cap: 450lbs
Sizes available:
up to 26”

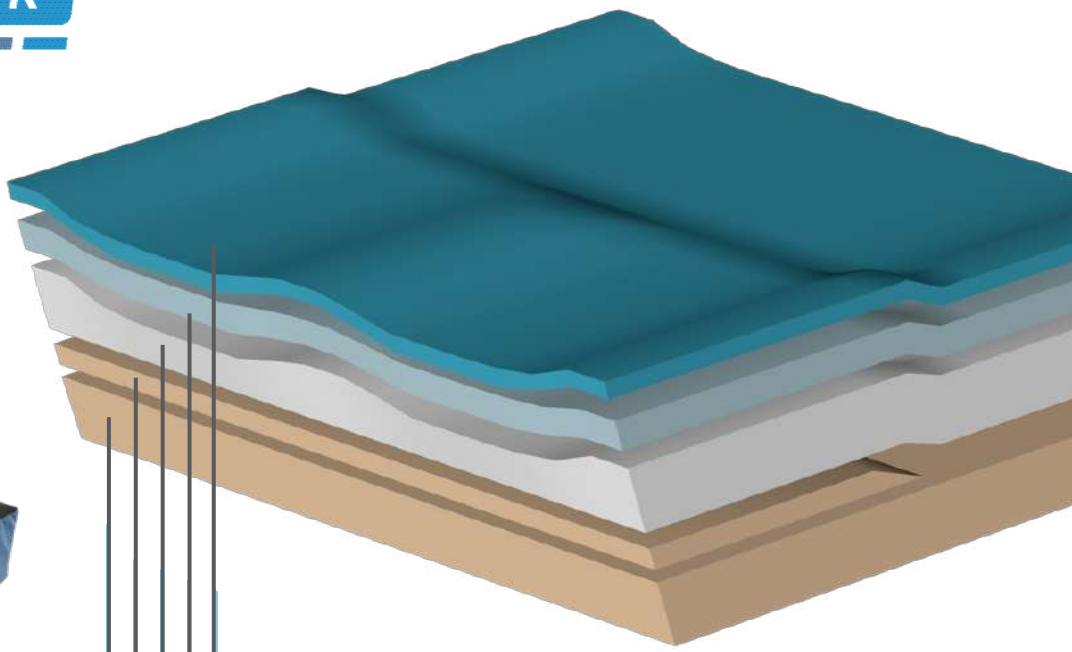
PC CUTBACK

Why Use the PC Cutback?

- Temperature regulation
- Active users
- Foot propellers
- Lightweight cushion



Height 3.5” PCCB(+size) **Weight cap** 275lbs



Premium layer of KulKote for temperature regulation

Pressure reduction through a 1” non-temperature sensitive memory foam

Support and comfortable transition with a resilient 1”polyurethane foam core

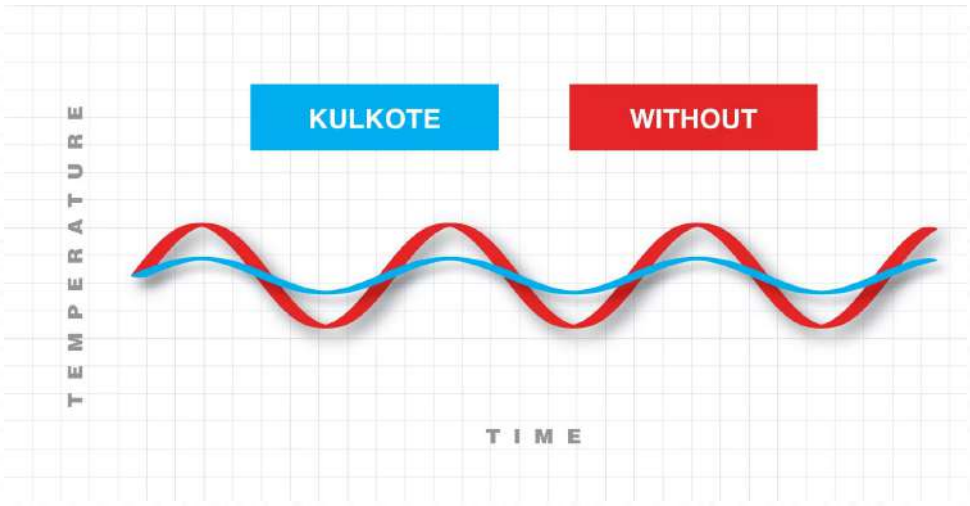
Slide prevention and security due to a firm 1/2” polyurethane foam ischial shelf

Easier full leg stroke for foot propellers with a 1” Anterior Cutback

Support and stability with a 1” firm polyurethane foam base

KulKote can be applied to almost any product!

Designed using KulKote phase change material with temperature regulating technology, the PC Cutback actively pulls and stores heat energy from the user to maintain comfortable skin temperature.



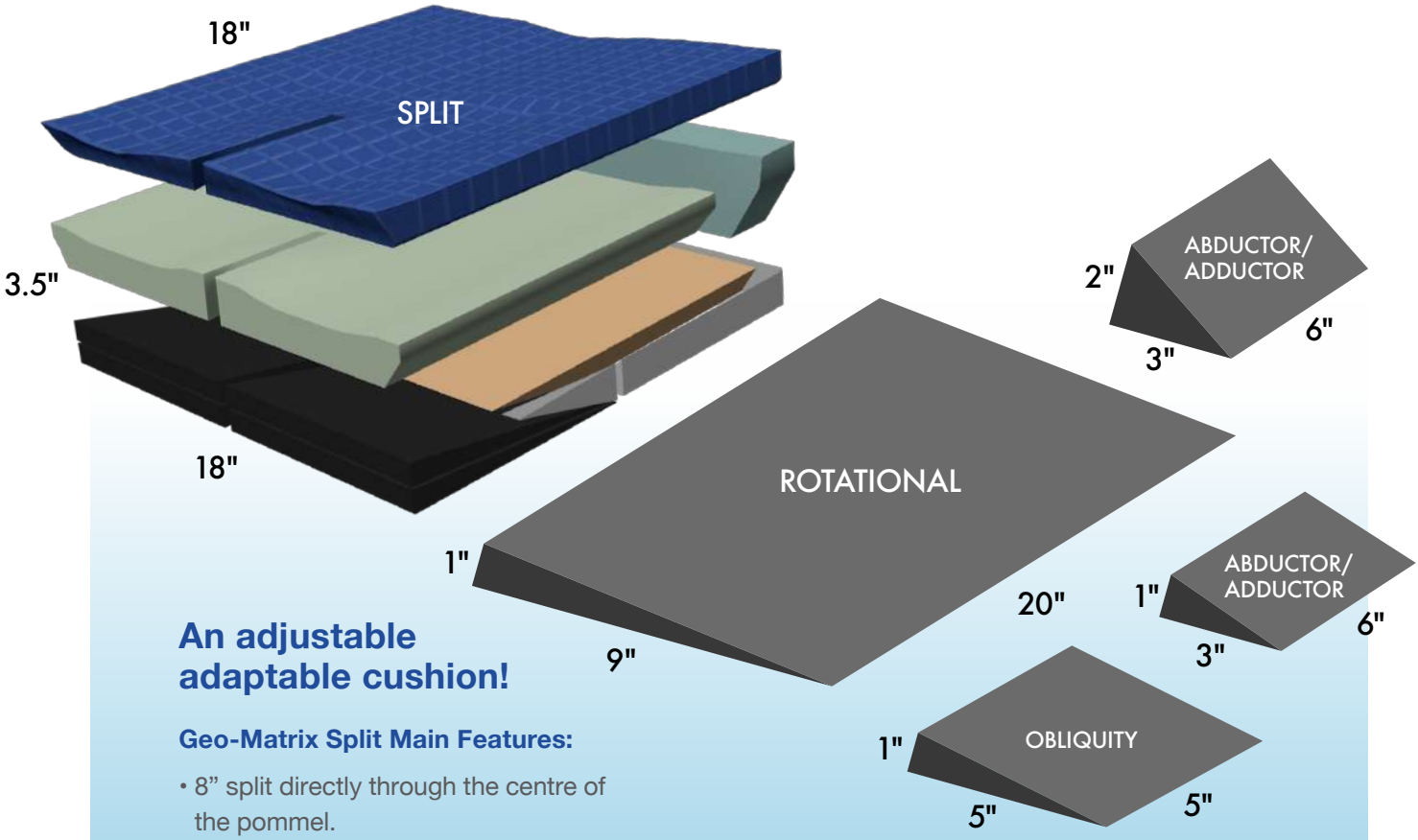
KülKōte®
It’s Cool to be Kül™

The goal of KulKote is long term temperature regulation. Other "cooling" cushions offer an immediate cooling effect, but that effect dissipates quickly. KulKote delivers immediate, ongoing, measurable, and noticeable results. As KulKote absorbs heat, a cooling effect is created. As the heat source is removed, the heat energy is released. This leads to a decrease in temperature fluctuations, creating a more comfortable environment.

FACT Excess perspiration leads to skin breakdown

SOLUTION PC Cutback cushion eliminates heat and moisture build-up

GEO-MATRIX™ Split Cushion



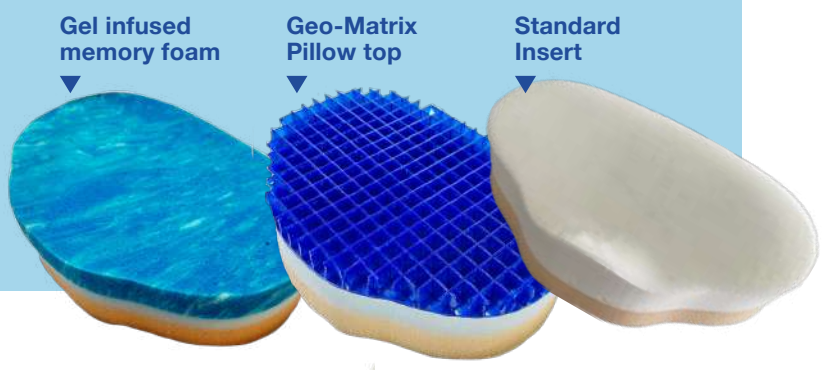
An adjustable adaptable cushion!

Geo-Matrix Split Main Features:

- 8” split directly through the centre of the pommel.
- Removable wedges which can be inserted under one or even both sides of the cushion’s leg trough region to accommodate the desired hip angle required for each individual user.
- Geo-Matrix™ gel top layer increases comfort, reduces pressure, prevents friction & shear and manages microclimate.
- 275 lb weight capacity
- Various wedges available individually or as an entire “fit kit”
- Wedges can be added or removed as needed for on the spot customization. This also allows for modifications to be easily made to the cushion if the user’s condition should change.
- Each wedge is made from a sturdy closed cell foam and secures to the inner cover of the cushion.



To further the Splits custom feel and protection there are different insert options that may be added underneath the high risk coccyx section. These inserts are:

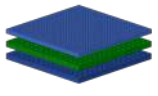


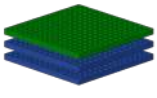
Cushion Comparison Chart

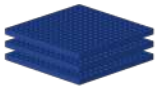
	GEL					FOAM		FOAM & GEL						
	 BRONZE	 SILVER	 GOLD	 GOLD+	 BOLD	 ZENTURY	 PC Cutback	 HYBRID	 HYBRID LP	 HYBRID DEEP	 HY. DEEP LP	 SPLIT	 PLATINUM	 PLAT. PLUS
Great For:														
Risk of Skin Breakdown	★	★★★	★★★	★★★	★★★	★	★	★★★	★★	★★★	★★	★★★	★★★	★★★
Shape/ Contour	★	★	★	★	★	★★★	★★	★★	★★	★★★	★★★	★★	★★	★★
Immersion	★★	★★★	★★★	★★★	★★★	★★★	★★★	★★	★★	★★★	★★	★★	★★★	★★★
Envelopment	★★	★★★	★★★	★★★	★★★	★★★	★★	★★	★★	★★★	★★★	★★	★★★	★★★
Stability	★★	★★	★★	★★	★★	★★	★★	★★★	★★★	★★★	★★★	★★★	★★	★★
Shear reduction	★★★	★★★	★★★	★★★	★★★	★	★	★★	★★	★★	★★	★★	★★★	★★★
Vibration Dampening	★★	★★★	★★★	★★★	★★★	★	★	★★	★★	★★	★★	★★	★★★	★★★
Adjustment	★★★	★★★	★★★	★★★	★★★	★		★★	★★	★★	★★	★★★	★★	★★
Temp Control	★★	★★	★★	★★	★★	★★★	★★★	★	★	★	★	★	★	★
Product Weight	★★	★★★	★★★	★★★	★★★	★	★	★★	★★	★★	★★	★★	★★★	★★★
Weight Capacity	★	★	★	★★	★★★	★	★	★	★	★	★	★	★★	★★★

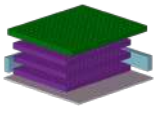
LOW ★ **MEDIUM** ★★ **HIGH** ★★★ | Postural Control | Tilt Chair Optimized | Foot Propulsion | Slide Reduction | Adaptable to Body Geometry

High Risk


200lbs
Geo-Matrix Silver

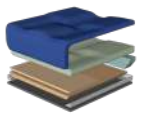

250lbs
Geo-Matrix Gold

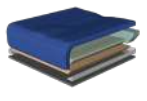

300lbs
Geo-Matrix Gold+


600lbs
Geo-Matrix Bold

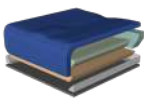

450lbs
Geo-Matrix Platinum+

Moderate Risk

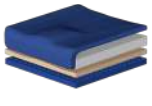

250lbs Geo-Matrix Hybrid
Deep Low Profile

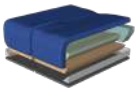

250lbs Geo-Matrix
Hybrid Low Profile

Multi-user – Suitable for Moderate & High Risk

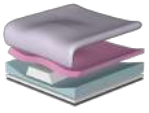

275lbs
Geo-Matrix Hybrid

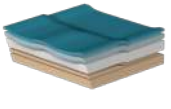

275lbs
Geo-Matrix Hybrid Deep

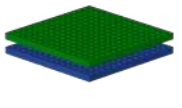

275lbs
Geo-Matrix Platinum


125lbs
Geo-Matrix Split

Low Risk


275lbs Zentury

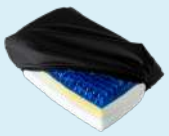
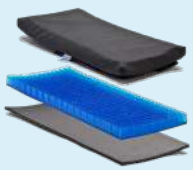

275lbs
PC Cutback


200lbs
Geo-Matrix Bronze

GEO-MATRIX™ Wheelchair Accessories

Exceptionally Soft Immersion * Premium protection * Pressure Redistribution * Wipeable

Our Geo-Matrix™ wheelchair accessories all feature our softest gel layer, the pillow top gel, for an exceptionally comfortable immersive surface that provides superior pressure redistribution and aids in the prevention, treatment and healing of skin ulcers. Additionally, all accessories are protected by a Recovery 5 anti-microbial cover that passes CAL 117 bul. This cover is made from a fluid-proof and fire-retardant four-way stretch fabric that is wipeable for easy disinfection which aids in easy maintenance and ensures a long product life.

Accessory		Thickness	Construction	Standard sizes*	Item No.
Amp pads***		2” 3” 4”	High Density foam with or without pillow top gel	6.5” X 10.5”	**APR(2,3 or 4)** **GAPR(2,3 or 4)** with pillow top
Arm rest pads (sold as a pair)		1.5”	Two layers of pillow top gel; Velcro straps.	4” X 14” 4” X 16”	**GAPSTD** **GAPLRG**
Calf panel**		.75”	One layer of pillow top gel; closed-cell foam back; Velcro straps	16” X 7” 16” X 10” 18” X 7” 18” X 10” 20” X 7” 20” X 10”	**GCPSTD** **GCPLRG**
Cascading foot plate pads*** (sold as a pair)		1.5”	Two layers of pillow top gel with cascading front; dual Velcro strips	6” X 8” 8” X 10”	**GFPLRG** **GFPSTD**
Commode pad		1.75”	One layer of blue gel and one layer of pillow top gel; non-slip bottom; four buckle straps	16” X 18” 18” X 18”	**GCO1618** **GCO1818**
Elbow tray pads (sold as a pair)		1.5”	Two layers of pillow top gel; two-sided Velcro bottom	8” X 7”	**GEPSTD**
Foot board pad		1.5”	Two layers of pillow top gel with cascading front; two-sided Velcro bottom	16” X 10” 18” X 10” 20” X 10”	**GFB1610** **GFB1810** **GFB2010**
Foot box		1.25”	High density foam base and sides. Pillow top overlay except on sides. Velcro bottom and back straps	16” X 9” X 14” 18” X 9” X 14” 20” X 9” X 14”	**GFBX** (width) **GFBXPB** (width) with plywood base
Hanger pads (sold as a pair)		.75”	One layer of pillow top gel; dual Velcro strips	6” X 8” 8” X 10”	**GHPSTD** **GHPLRG**
Lift Chair pads		1.5”	1 layer of blue mattress gel, Recovery5 black cover, 2 sets of Velcro straps	20” X 20”	**GLCP(+Size)**

OT Talk

Vibration Dampening!

Whole-body vibration (WBV) can cause fatigue, stomach problems, headache, loss of balance and “shakiness” shortly after or during exposure. The symptoms are similar to those that many people experience after a long car or boat trip. After daily exposure over a number of years, whole-body vibration can affect the entire body and result in a number of health disorders.

WBV is a big risk for Power Chair Users especially

How does GEO-MATRIX™ Gel help?

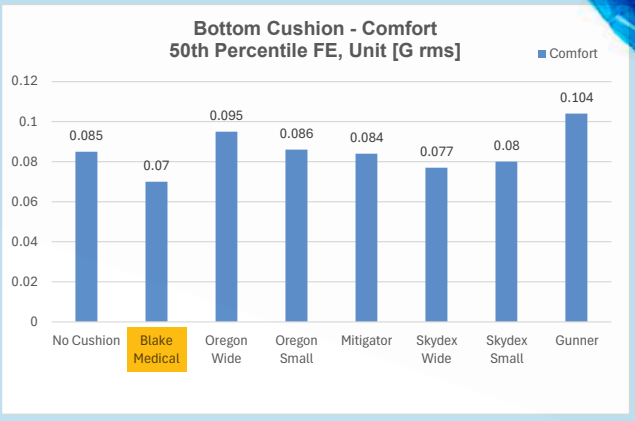
Geo-Matrix gel is proven to dampen the vibration coming up through the chair…

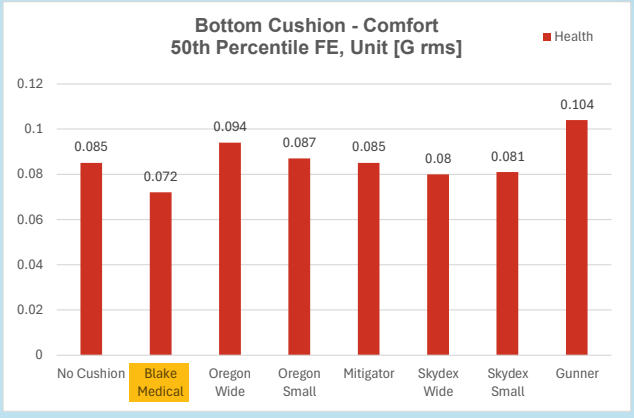
The National Research Council of Canada performed testing using Blake Medical’s Geo-Matrix gel when used in the application of helicopter seating.

Canada NRC·CNRC

“Blake Medical cushion extended the “Caution Zone” exposure limit by nearly 50%, enhanced ride comfort and provided more effective protection to aircrew. Decreasing health risk in long term operation.”

https://www.ccohs.ca/oshanswers/phys_agents/vibration/vibration_effects.html





It was important to reduce the amplitudes of the 2/rev hamonics at the bottom seat cushion interface to mitigate the whole-body vibration levels of the aircrew on the Bell-205 helicopter.





But I don’t ride a hellicopter

Good point. However, the vibration that affects your body through your wheelchair is very similar

So I am at risk of being hurt by Whole Body Vibration?

Not nearly as much if you’re using Geo-Matrix™ gel!

Notes:

Frequently Asked Questions



Not sure which product is right for you?

We demo all of our standard size Geo-Matrix ™ cushions, backrests, headrests and mattresses to ensure your **complete satisfaction**.

Need a custom cushion?

We'll work with you to engineer a perfect solution, no matter the difficulty!

Problems with a product?

Live trouble-shooting & mobile pressure-mapping systems allow for onsite assessments and analysis.

Warranty Information

We proudly guarantee our Geo-Matrix™ line of wheelchair cushions with a two-year warranty because we are commited to ensuring your complete satisfaction.

Blake
Medical Distribution

'Adapting to your needs...Exceeding your expectations.'

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