

**SPECIFICATION FOR THE SUPPLY AND DELIVERY OF A CELL MATT TO THE SOUTH AFRICAN
POLICE SERVICE**

SPEC NUMBER: 323353/2025



SOUTH AFRICAN POLICE SERVICE CELL MAT

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SCOPE OF THE REQUIREMENT

This specification covers the material and make of cell matts for use in cells of the South African Police Service.

IMPORTANT NOTICE!

- Attention is drawn to the detailed specification technical requirements herein.
- The SAPS requires that all columns in the specification document must be completed. If a specific column cannot be completed, a detailed explanation must be provided. The SAPS then use discretion to either accept or reject the explanation or deviation.
- No materials shall be supplied by the SAPS.
- Attention is drawn to the certificate of Conformance (COC) and test report required. Illustrations/drawings in the specification are not scaled and are for guidance only.
- The SAPS takes no responsibility whatsoever for the violation of any patent rights.
- Attention is drawn to the possible requirement of an identification type and/or method of labeling in or onto the end-product or any part of the product as requested in the specification.
- The specification includes normative references to guide the product quality standards to which the product must adhere, and it refers to the latest edition of each standard as far as possible. The bidder is strongly encouraged to take steps to ensure the use and standards of the most recent editions of the norms and standards documents referred to in the specification.
- Indicate only **Comply** or **Not comply** in the "State:" box. No "X" or "✓" indications shall be allowed.
-

NO	DESCRIPTION	OFFER: PLEASE ONLY STATE: <u>COMPLY</u> OR <u>NOT COMPLY</u> BELOW
1.	GENERAL:	
1.1.	The cell mat shall consist of high-quality close cell foam layers that are completely covered with a PVC cover/casing.	STATE:
2.	MATERIAL REQUIREMENTS	
	The materials, tested in accordance with, each material as well as composite, i.e. foam (see 6.8.2.) and cover fabric (see...., shall be flame retardant when tested in accordance with ISO 8191-1 "Furniture – Assessment of ignitability and upholstered furniture – Part 1: Ignition source: smouldering cigarette" and ISO 8191-2 furniture – assessment of ignitability of upholstered furniture – Part 2 Ignition source: match flame equivalent.	STATE:
2.1.	Foam	

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	Shall comply with the requirements for Type III RE, Class V, Grade 330 od SANS 883 "Flexible cellular polymeric materials – Polyurethane foam for load-bearing applications excluding carpet underlay – specification".	STATE:
	Density to be in range of 72kg/m ³ to 88 kg/m ³ (maximum.	STATE:
2.2.	Cover fabric	
2.2.1.	To consist of a polyester base fabric that is coated with a PVC compound.	STATE:
2.2.2.	Polyester base fabric to comply with the requirements as given in table.	STATE:
2.2.3.	Finished coated PVC material to comply with the requirements as given in table 2.	STATE:
2.2.4.	To be robust, strong and able to withstand rough handling, trampling and vigorous cleaning without deteriorating or cracking for the full-service life of the cell mat.	STATE:
2.2.5.	Colour to be an acceptable match to colour No. C809 of CKS 129 "Colours for textiles".	STATE:
2.3.	Sewing threads	
2.3.1.	The primary method for seam closure shall be heat-sealing (welding). Therefore, the stitched seams shall only serve as additional reinforcement.	STATE:
2.3.2.	To comply with the relevant requirements of SANS 1362 "Sewing threads".	STATE:
2.3.3.	Ticket number and yarn composition to be fit for purposes.	STATE:
2.3.4.	Colour to be an acceptable match to the colour of the cover fabric.	STATE:
3.	WORKMANSHIP	
3.1.	The cell mats shall be:	
3.1.1.	Cut and made with first-class workmanship throughout.	STATE:
3.1.2.	Of uniform and acceptable make, colour and finish.	STATE:
3.2.	Shall be free from:	
3.2.1.	Defects that affect their appearance or may affect their serviceability (or both).	STATE:
3.2.2.	Marks, spots and/or stains incurred in the making-up.	STATE:
3.3.	Welded seams and additional stitches shall be:	
3.3.1.	Smooth and uniform.	STATE:

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3.3.2.	Free from twists, pleats and puckers.	STATE:
3.3.3.	Sufficiently extensible to avoid seam cracking and undue shrinkage in use.	STATE:
3.4.	Ends of sewing shall be:	
3.4.1.	Trimmed and loose threads removed.	STATE:
3.4.2.	Back-tacked if unsecured.	STATE:
3.4.3.	Figure 3 – Seam construction of cell mat Figure 4 – Longitudinal cross-section of cell mat Figure 5 – Horizontal cross-section of cell mat	STATE:
4.	MAKE	
4.1.	Cell mat	
4.1.1.	Foam	
4.1.1.1.	The foam (see 6.1) shall be cut to be finished dimensions as given in figure 2.	STATE:
4.1.1.2.	Cover	STATE:
4.1.1.3.	The cover shall be made from a continuous length of cover material as given in 6.2.	STATE:
4.1.1.4.	The cover shall enclose the foam completely (see figure 4 and 50	STATE:
4.1.1.5.	The cover shall conform to the shape and dimensions of the foam	STATE:
4.1.1.6.	The cover shall fit snugly over the foam without distorting the shape	STATE:
4.1.1.7.	The cover shall be constructed as follows:	STATE:
4.1.1.8.	One short end and one long end shall be boxed (see figures 1 and 3)	STATE:
4.1.1.9.	The remaining long side edge shall not be seamed, i.e. the folded edge of the over material (see figure 1 and 3)	STATE:
4.1.1.10.	The remaining short edge shall be neatly finished.	STATE:
4.1.2.	Seams	
4.1.2.1.	The seams off the cover shall be stitched with a single row of stitching and then afterwards securely heat-sealed/welded over the stitching.	STATE:
4.1.2.2.	The seam welding shall serve as the primary seam closing measure, which shall only be reinforced by the stitching.	STATE:
4.1.2.3.	The welded seams shall be free from untreated areas and other imperfections e.g blisters, ripples, tears,	STATE:
4.1.2.4.	The seam construction shall be as given in figure 3.	STATE:

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5.	WARRANTY AND SERVE LIFE	
5.1.	The cell mat shall be guaranteed in terms of the bid General Conditions of Contract.	STATE:
5.2.	Should the cell mat show any signs of degradation or non-performance in any way stipulated in the specification during the required service period, the supplier shall be responsible for the replacement of the cell mat immediately at his own cost.	STATE:
5.3.	Delivery	
5.3.1.	All cell mats delivered must be in a commercially dry and clean condition	STATE:
5.3.2.	So packed that they will not be damaged in transit or in storage.	STATE:
5.6.	Pre-delivery inspection	
5.6.1.	The cell mats to be a predelivery inspection at the premises of the manufacturer/successful bidder.	STATE:
6.	NORMATIVE REFERENCES	
6.1.	The following documents contain provisions which, through reference in this text, constitute provisions of this specification. All documents are subject to revision and, since any reference to a document is deemed to be a reference to the latest edition of that document, parties to agreements based on this specification are encouraged to take steps to ensure the use of the most recent editions of the documents indicated below. Information on currently valid national and international documents may be obtained from SABS Standard Sales 1. • AATCC test method 20, Fiber analysis: Qualitative. Available from World Wide Web 1. • ISO 8191-1, Furniture - Assessment of the ignitability of upholstered furniture - Part 1: Ignition source: smouldering cigarette 1. • ISO 8191-2, Furniture - Assessment of ignitability of upholstered furniture - Part 2: Ignition source: match-flame equivalent 1. • SANS 79, Textiles – Mass per unit area of conditioned fabrics 1. • SANS 642, Reconstituted flexible polyurethane foams 1. • SANS 1362, Sewing threads 1. • SANS 5323, Breaking strength of seams in textiles 1. • SANS 7211-2/ISO 7211-2, Textiles – Woven fabrics – Construction – Methods of analysis – Part 2: Determination of number of threads per unit length 1. • SANS 13934-1, Textiles – Tensile properties of fabrics – Part 1:	STATE:

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	Determination of maximum force and elongation at maximum force using the strip method 1. SANS 13937-4, Textiles - Tear properties of fabrics Part 4: Determination of tear force of tongue-shaped test specimens (Double tear test).	
7.	DEVIATION FROM SPECIFICATION REQUIREMENTS	
7.1.	Should the bidder deviate from any of the technical requirements within the specification, must it be clearly indicated as such below. The SAPS has the right to accept or to reject the alternative offer/deviation indicated by the bidder.	

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Boxed edges (seal allowance on inside)

Fold (no seams)

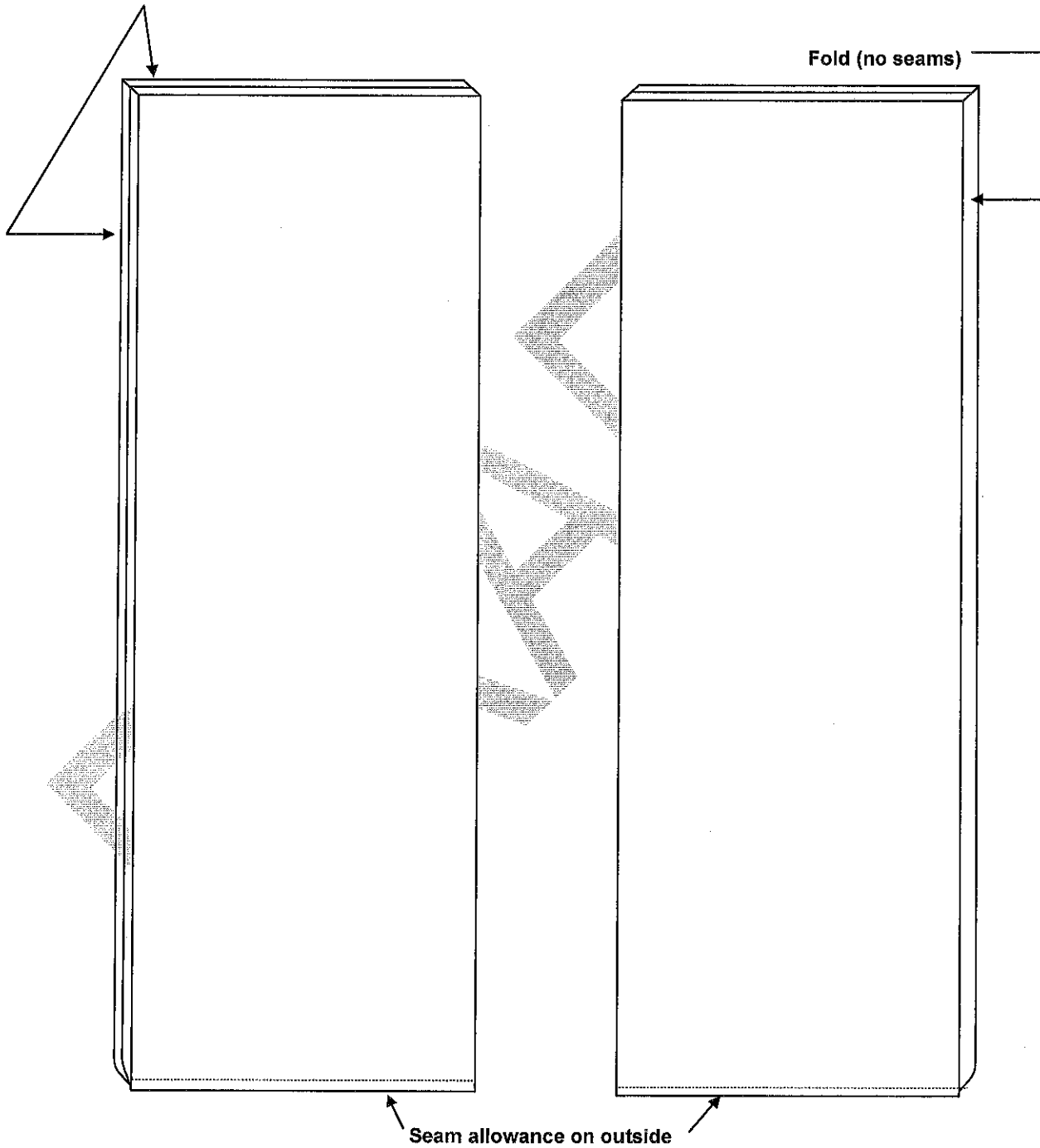


Figure 1 – Construction of cell mat

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Table 1 - Base fabric requirements

1	2	3
Property	Requirements	Test method
Fibre composition	100%	AATCC 20
	Continuous filament polyester	Physical examination
Weave	Plain	SANS 79
Mass 1) per unit area, g/m ²	170	SANS 7211-2
1) $\pm 5\%$		

Table 2 – PVC coated material requirements

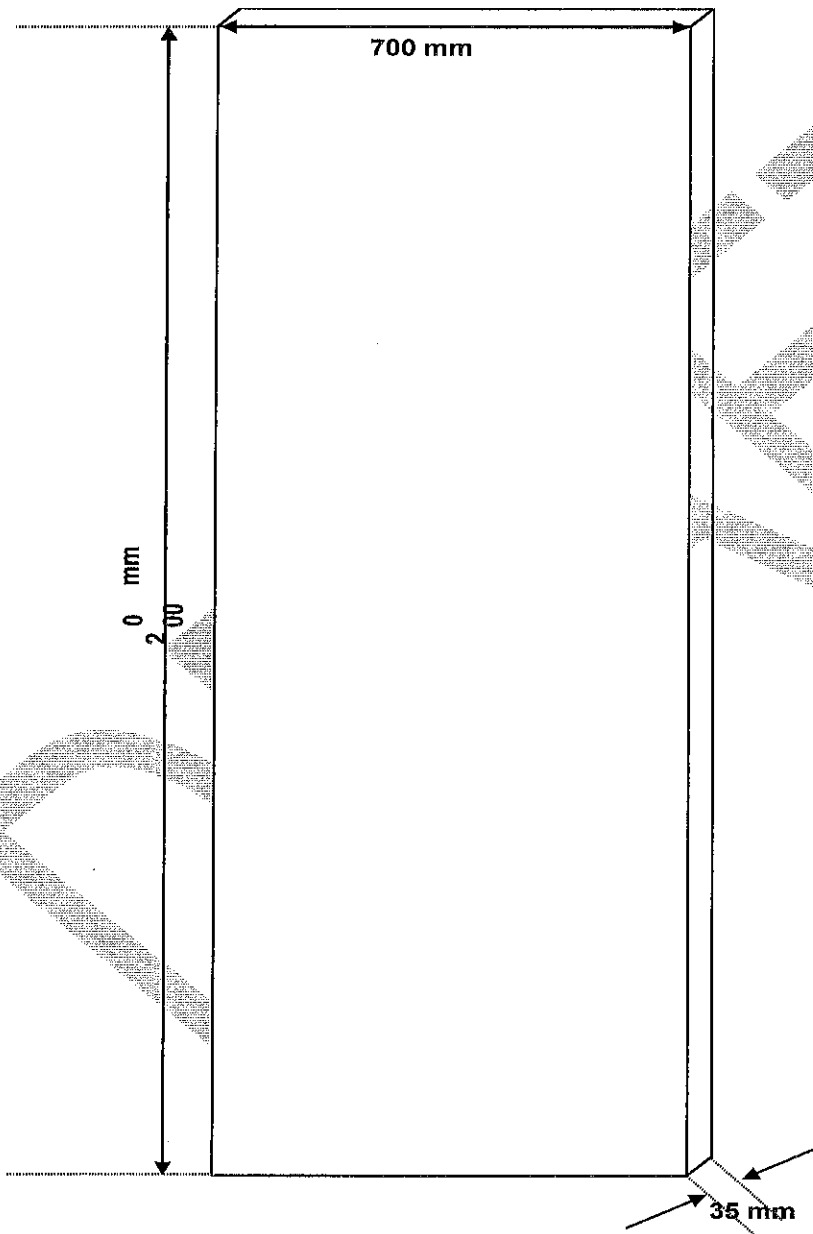
1	2	3
Property	Requirements	Test method
Mass 1) per unit are, g/m ²	500	SANS 79
Breaking strength, N, min		SANS 13934-1
As received:		
Warp	2000	
Weft	2000	
Tearing strength, N, Min ²⁾ .		SANS 13937-4
Warp	500	
Weft	500	
Seam strength ³⁾	1500	SANS 5323
1) $\pm 5\%$		
2) Expect that the size of the test specimens shall be 180 mm x 150 mm and the width of the tongue shall be 50 mm . Report the mean of the highest peak values.		
3) Applicable to side seams (long edge).		

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SIZE AND DIMENSIONS

The finished dimensions of the foam on the inside of the PVC cover shall be given as below. All measurements are nominal.



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Figure 2 – Finished dimensions of foam

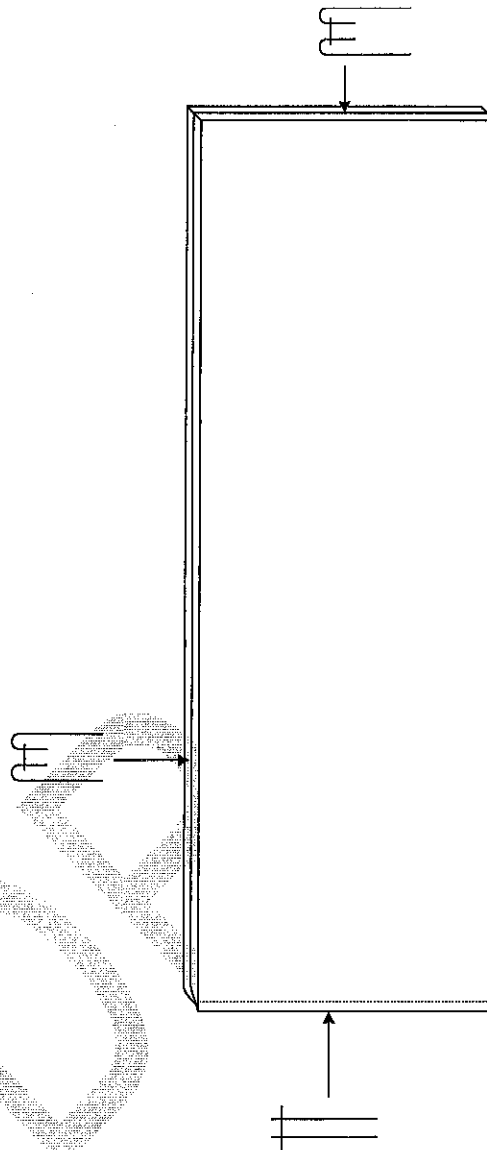


Figure 3 – Seam construction of cell mat

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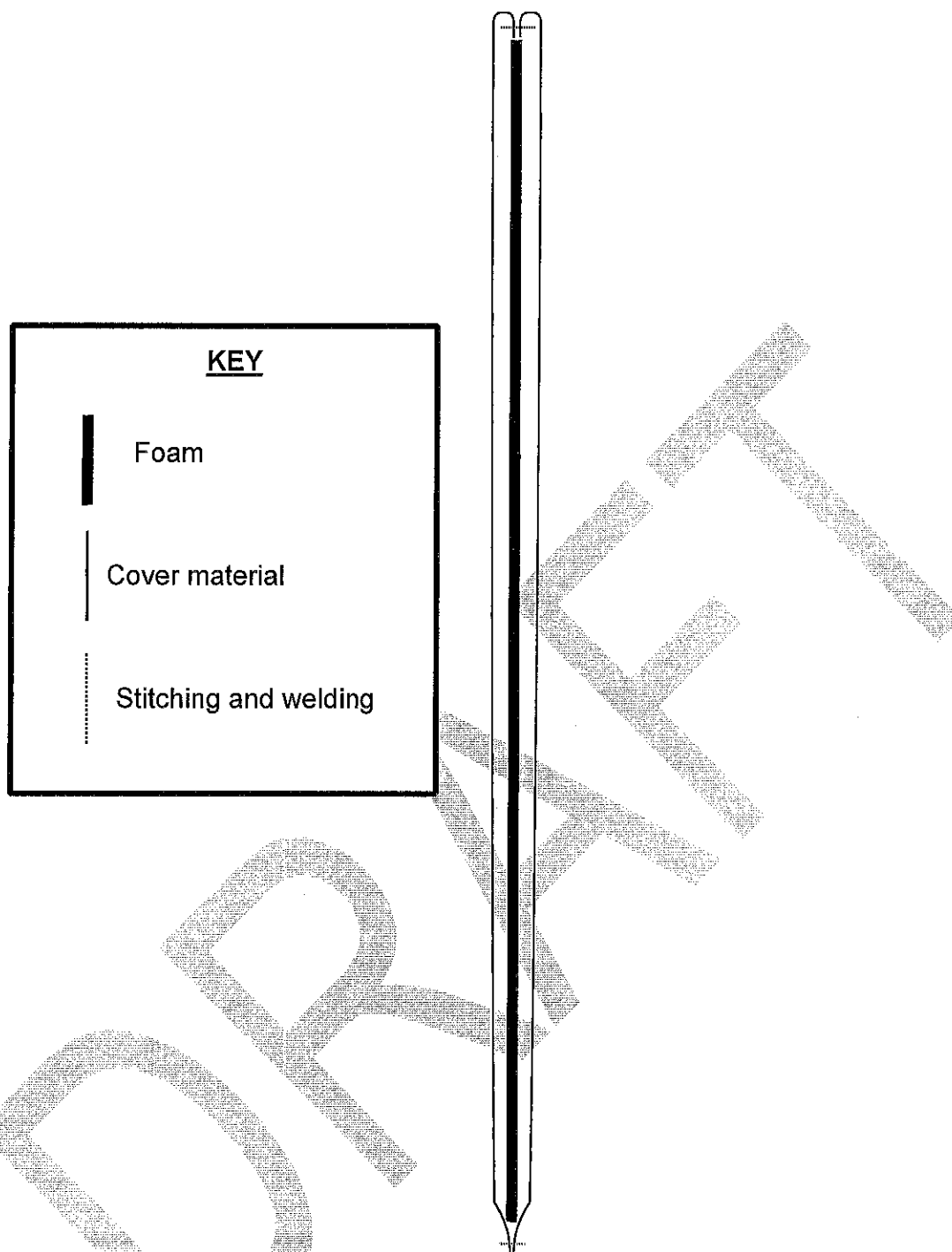


Figure 4 – Longitudinal cross-section of cell mat



Figure 5 – Horizontal cross-section of cell mat