

UK/SC/6338 Issue 5

SPECIFICATION FOR NET, CAMOUFLAGE, FIBRE, MK 7 UNGARNISHED ARCTIC/DESERT/WOODLAND



**OPERATIONAL INFRASTRUCTURE
PROGRAMME**

Property of:
OIP
DE&S
MOD Abbey Wood

NN/P1628/3 (ST)

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NV/318/044 (QPS)

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Supersedes UK/SC/5097, UK/SC/5119, UK/SC/5172

Ungarnished MK 7 Woodland Camouflage Nets

<u>NATO Stock Numbers</u>	<u>Size</u>	<u>Pattern No.</u>
1080-99-978-3430	9m x 9m	None
1080-99-978-3431	11.5m x 11.5m	None
1080-99-978-6082	12m x 12m	None
1080-99-978-3432	12m x 14m	None
1080-99-978-4280	18m x 18m	None
1080-99-978-8773	4.5m x 4.5m	None
1080-99-978-8774	11.5m 5.5m	None
1080-99-978-8794	16m x 16m	None

Ungarnished MK 7 Desert Camouflage Nets

<u>NATO Stock Numbers</u>	<u>Size</u>	<u>Pattern No.</u>
1080-99-132-1333	4.5m x 4.5m	None
1080-99-132-1334	7.5m x 7.5m	None
1080-99-978-7017	9m x 9m	None
1080-99-132-1335	11m x 5.5m	None
1080-99-132-1336	11m x 11m	None
1080-99-132-1337	12m x 14m	None
1080-99-978-7018	18m x 18m	None

Ungarnished MK 7 Arctic Camouflage Nets

<u>NATO Stock Numbers</u>	<u>Size</u>	<u>Pattern No.</u>
1080-99-132-1076	4.5m x 4.5m	24024
1080-99-132-1077	7.5m x 7.5m	24025
1080-99-132-1078	11.5m x 11.5m	24026
1080-99-132-1079	12m x 14m	24027
1080-99-132-1080	12m x 6m	24028
1080-99-978-8776	11.5m x 5.5m	None
1080-99-860-0325	9m x 9m	None
1080-99-753-0106	16m x 16m	None
1080-99-581-0845	18m x 18m	None

IPR STATEMENT

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CROWN COPYRIGHT RESERVED**SPECIFICATION UK/SC/6338 - ISSUE TABLE**

Issue Number	Comments	Date Published
1	Initial issue	5 May 2006
2	Arctic base nets added: 1080-99-860-0325, 1080-99-753-0106 and 1080-99-581-0845	3 July 2007
3	Reformatted.	7 June 2010
4	Reformatted. References to QAA changed to Authority. Standard Patterns are no longer available, Para amended.	22 June 2011
5	Reformatted.	24 Sept 2013

1 **SCOPE**

- 1.1 This specification covers the requirements for the manufacture of the base net for the MK 7 camouflage net in Arctic, Desert and Woodland patterns. The Woodland net is also used as the base net for the Moorland/Woodland pattern.

2 **RELATED SPECIFICATIONS AND DOCUMENTS**

Reference is made in this specification to:

2.1 **Standards**

BS EN ISO 105	Textiles - Tests for colour fastness.
BS EN ISO 2062	Textiles. Yarns from packages. Determination of certain physical and mechanical properties.
BS EN 919	Fibre ropes for general service. Determination of certain physical and mechanical properties.
BS 946	Methods for the designation of yarns.
BS 3870	Stitches and seams.
BS 4F120	Specification for continuous filament nylon sewing threads for aerospace purposes.

2.2 **Drawings**

A1/8425	Net, camouflage, arctic/woodland, MK 7, ungarnished
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- 2.3 Reference in this specification to a British Standard or any other specification or document means, unless otherwise stated, the edition current at the date of such tender or contract.

3 **SAMPLES**

- 3.1 If requested by the Contractor a reference samples of the netting twine and border cord will be provided by the Authority. They provide the criteria for any particulars or properties not fully defined in this specification.

4 **MATERIALS**

- 4.1 The nets shall be made from continuous filament nylon twine conforming to the requirements of Table 1 and Table 2.
- 4.2 The periphery cord shall be of braided construction. The cord and the yarn shall be made from and shall conform to the requirements of Table 1 and Table 3.
- 4.3 The basic polymer for the netting twine and periphery cord shall be nylon 6 or nylon 6.6. Mixtures are not admissible.
- 4.4 Sewing thread shall be BS 4F120 NT5.
- 4.5 The anti-abrasion finish shall be an aqueous dispersion of a butyl acrylic styrene polymer, diluted 1 parts acrylic to 10 parts water.

5 **MANUFACTURE**

- 5.1 The netting shall be made from three-ply twine.
- 5.2 The twine and periphery cords shall be dyed to match the reference sample, or loom state. When loom state materials are used the net shall be coloured to match the reference sample using an acrylic lacquer applied after the attachment of the periphery cord.
- 5.3 The netting shall be knotted with tightly drawn knots.
- 5.4 The mesh shall be square:-
- | | |
|------------|-----------------|
| Arctic - | 75 ± 2mm sides |
| Desert - | 100 ± 2mm sides |
| Woodland - | 75 ± 2mm sides |
- 5.5 Each net shall be made so that its sides are parallel to the square mesh of the netting.
- 5.6 A periphery cord shall be attached to the cut to size net by stitching with nylon sewing thread using stitch type 504 of BS 3870. A series of loops shall be incorporated into the periphery cord to form Dutch lacing. Loops shall be formed on all four corners and two adjacent sides as shown on drawing A1/8425. Note that the spacing between loops shall be three meshes for the arctic and woodland nets (every 225mm) as shown in the drawing, and two meshes for the desert net (every 200mm).
- 5.7 The net shall be bonded using the anti-abrasion finish from paragraph 4.5.
- 5.8 The net shall be heat set to a minimum temperature of 80°C.
- 5.9 The dimensions of the net shall comply with the details in the Appendix.

TABLE 1 – Colour Fastness Requirements

AGENCY	RATING	METHOD OF TEST
Light	6	BS EN 105-B02 (Xenon lamp)
Water:- Colour change Staining	4 4	BS EN 105-E01
Rubbing:- Wet Dry	4 4	BS EN 105-X12

TABLE 2 – Requirements for Netting Twine

PROPERTY	REQUIREMENT	METHOD OF TEST
Construction	3760 Dtex S275 x 3Z140	BS 949
Weight g/m	Not greater than 1.35	BS EN 919
Breaking load N	Not less than 650	BS EN 919

Note: Dtex figures are nominal and may be achieved by any mix of counts,
 e.g. 3760 Dtex = (1880 x 1) + (940 x 2) or 940 x 4.
 Units of twist are turns per metre: tolerance ± 20 to meet breaking load requirement.

TABLE 3 – Requirements for Periphery Cord

PROPERTY	REQUIREMENT	METHOD OF TEST
Yarn: Construction	940 Dtex 140 filaments	
Yarn: Tenacity g/Dtex	Not less than 6.7	BS EN ISO 2062
Yarn: Extension at break %	17 to 25	BS EN ISO 2062
Cord: Construction	16 ends: 4 x 940 Dtex	
Cord: Number of spindles	16	
Cord: Plaits per metre	320 \pm 15	
Cord: Weight g/m	Not greater than 7	BS EN ISO 2062
Cord: Breaking load kN	Not less than 2.7	BS EN ISO 2062

6 **PACKAGING**

- 6.1 Packaging (preservation, identification and packing) shall be in accordance with the terms of the contract.

7 **INSPECTION**

- 7.1 Inspection shall be carried out to the satisfaction of the Authority.

APPENDIX

A1. METHOD OF NET MEASUREMENT

- A1.1 A one metre long stick shall be intertwined with the net mesh, and positioned on the centre selvedged edge on each side of the net length to be measured. The net shall be pulled tight using the sticks, and then relaxed. A calibrated force meter shall be attached to one stick, and the other stick pegged to the ground or otherwise anchored. The net shall then be pulled out to a tensioned reading of 5kg on the force meter and the net measurement taken. Nets of 12-metre or greater dimension shall be tensioned to 10kg to allow for the overall weight of the net.
- A1.2 A calibrated spring balance type of tensioning device can be used if a force meter is unavailable.

TABLE 4 – Net Size and Tolerance

NET SIZE	TOLERANCE
4.5m x 4.5m	± 0.1m
7.5m x 7.5m	± 0.1m
9m x 9m	± 0.1m
11m x 11m	± 0.2m
11m x 5.5m	± 0.2m
11.5m x 11.5m	± 0.2m
12m x 6m	± 0.2m
12m x 14m	± 0.2m
16m x 16m	± 0.3m
18m x 18m	± 0.3m