UK/SC/5095 Issue 5

Specification for

CLOTH, COATED ACRYLIC ON NYLON BROWN

OPERATIONAL INFRASTRUCTURE PROGRAMME

Property of:
OIP
DE&S
MOD Abbey Wood

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Supersedes SCRDE/PD22A/87

NATO Stock Numbers	**Pattern Number**
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SPECIFICATION UK/SC/5095 – ISSUE TABLE

Issue Number	Comments	Date Published
1	Initial issue	17 April 1990
2	Specification reformatted. Standards updated	30 July 2010
3	Para. 4.3 – ‘green’ replaced with ‘brown’	22 November 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 describes the requirements of a coated fabric to be used in the manufacture of garnishing material for the MK 7 Woodland camouflage net.

2 RELATED SPECIFICATIONS AND DOCUMENTS

Reference is made in this specification to:

BS EN ISO 105-B02	Textiles - Tests for colour fastness to artificial light: xenon arc fading lamp test
BS EN 1421	Determination of tensile strength and elongation at break
BS EN ISO 2286	Rubber – or plastic – coated fabrics. Determination of roll characteristics
BS 3424	Methods of test for coated fabrics
BS 3900	Methods of test for paints
BS 4040	Specification for leaded petrol (gasoline) for motor vehicles
UK/SC/4830	Measurement of colour, calculation of colour difference and numerical tolerances for certain MoD cloths

2.1 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 sample will be provided by the Authority. It is to provide the criteria for any particulars or properties not fully defined in this specification.

4 MATERIALS AND MANUFACTURE

4.1 The base cloth shall be plain woven from continuous filament semi-matt nylon 6.6 yarns of 110 decitex with 27 ends per cm and 27 picks per cm minimum and of mass 61 g per square metre.

4.2 Alternative base cloths may be considered by the Authority named in the contract prior to the start of the contract.

4.3 The fabric shall be dyed green to match the reference sample.

4.4 A heat setting treatment shall be applied to the base fabric to enable the cloth to withstand the subsequent processing.

4.5 The fabric shall be uniformly coated on each face with a cross-linked acrylic polymer incorporating a suitable matting agent.

4.6 The colour of the coating shall be brown to match the reference sample. The optical properties of the coating shall comply with the requirements of Table 1 and Annex D of this specification.

4.7 Width

4.7.1 Unless otherwise agreed between the Authority and the Contractor, the minimum width of the cloth shall be as specified in Table 1, the measurement being carried out by Method 1 of BS 3424. The minimum width specified or agreed refers to the usable width. Unless otherwise stated in the tender or contract, this shall be the width of the cloth that meets all the requirements of the finished cloth and specification and excludes all selvedge material, marks, pinholes and coating tail offs.

4.8 Finishing

4.8.1 The shade and finish shall match the reference sample supplied and shall be uniform throughout.

4.8.2 The cloth shall conform to the finishing requirements in Table 1 below.

5 PHYSICAL REQUIREMENTS

5.1 The physical requirements of the finished cloth shall comply with the values specified in the following Table.

TABLE 1 - Physical Requirements

PROPERTY	REQUIREMENT	METHOD OF TEST
Mass/Unit area (g/m²)	Max 110	BS EN ISO 22286
Width cm	Min 137	As stated in Para 4.7
Breaking strength N Warp Weft	 Min 630 Min 550	BS EN 1421
Tear strength N across warp across weft	Mean of maxima not less than a minimum of 35 35	BS 3424 Method 7B
Cold crack °C	Not higher than -40	BS 3424 Method 10A
Colour fastness to light	Not lower than 6	BS EN 105-B02
Resistance to petrol	See Annex C	ANNEX C
Infra-red reflectance (per cent) As received After ageing After exposure to light	 45 ± 5 45 ± 5 45 ± 5	 BS 3424 Method A5 ANNEX A ANNEX B
Gloss (per cent both Sides)	Not greater than 14	BS 3424 Method A3
Reflectance at 560 nm and 600nm (per cent both sides)	Not less than 5 and not greater than 10	ANNEX D

ANNEX A

DETERMINATION OF INFRA-RED REFLECTANCE AFTER AGEING

A1 Fabric of suitable dimensions shall be aged for 24 hours at 70 ± 1°C and over 95% RH.

A2 The infrared reflectance of the aged sample shall be determined by the method specified in BS 3424 Method A5, in a suitably sealed oven of internal volume about 150 litres.

A3 The oven shall be pre-heated to the operating conditions of 70°C and 95% RH prior to introducing the samples in such a manner that they are free from strain, freely exposed on all sides and not exposed to light. Any direct heat radiation onto the test samples shall be avoided. Suitable instruments for monitoring the temperatures and humidity inside the sample space of the oven shall be provided. The pressure inside the oven shall not exceed atmospheric pressure.

ANNEX B

DETERMINATION OF INFRA-RED REFLECTANCE AFTER EXPOSURE TO LIGHT

B1 Upon completion of the colour fastness to light determination the infrared reflectance of the exposed sample shall be determined by the method specified in BS 3424 Method A5, except that only one reading is to be made.

ANNEX C

RESISTANCE TO PETROL

C1 Fabric of suitable dimensions shall be immersed in petrol, (BS 4040, 4 star) at room temperature, for one minute. The fabric shall then to be folded so that the coated fabric is in contact with itself and placed under a load of 5g/cm^2 for 5 minutes. After removal of the load, there shall be no adhesion of one coated face to the other.

ANNEX D

DETERMINATION OF REFLECTANCE AT 560 NANOMETRES AND 600 NANOMETRES

D1 This determination shall be made by the method specified in BS 3424 Method A5 except that appropriate band pass filters shall be used instead of the Wratten 87 filter.

(Sir Howard Grubb Parsons & Co Ltd filters with central pass wavelengths of 560 nm and 658 nm and bandwidths of 54 nm and 82 nm respectively are suitable for this determination).