Ministry of Defence

Defence Standard 81-041 Part 6

Issue 10 **Date: 14 February 2018**

Packaging of Defence Materiel
Part: 6 : Package Marking

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Section 1

Foreword

Defence Standard Structure

Section 1 (Generated by the StanMIS toolset)

- Revision Note
- Historical Record
- Warning
- Standard Clauses

Section 2 (Technical information provided by Subject Matter Expert)

- Title
- Introduction (optional)
- Table of Contents
- Scope
- Technical Information to include Tables and Figures
- Annexes (as required)

Section 3 (Generated by StanMIS toolset)

- Normative References
- Definitions
- Abbreviation

REVISION NOTE

Standard updated to replace all barcode type 39 with PDF 417

HISTORICAL RECORD

This standard supersedes the following:

Def Stan 81-41 Part 6 Issue 9

WARNING

The Ministry of Defence (MOD), like its contractors, is subject to both United Kingdom and European laws regarding Health and Safety at Work. Many Defence Standards set out processes and procedures that could be injurious to health if adequate precautions are not taken. Adherence to those processes and procedures in no way absolves users from complying with legal requirements relating to Health and Safety at Work.

STANDARD CLAUSES

a) This standard has been published on behalf of the Ministry of Defence (MOD) by UK Defence Standardization (DStan).

b) This standard has been reached following broad consensus amongst the authorities concerned with its use and is intended to be used whenever relevant in all future designs, contracts, orders etc. and whenever practicable by amendment to those already in existence. If any difficulty arises which prevents application of the Defence Standard, DStan shall be informed so that a remedy may be sought.

c) Please address any enquiries regarding the use of this standard in relation to an invitation to tender or to a contract in which it is incorporated, to the responsible technical or supervising authority named in the invitation to tender or contract.

d) Compliance with this Defence Standard shall not in itself relieve any person from any legal obligations imposed upon them.

e) This standard has been devised solely for the use of the MOD and its contractors in the execution of contracts for the MOD. To the extent permitted by law, the MOD hereby excludes all liability whatsoever and howsoever arising (including, but without limitation, liability resulting from negligence) for any loss or damage however caused when the standard is used for any other purpose.

Section 2

Packaging of Defence Materiel

Part 6 - Package Marking

Foreword

REVISION NOTE

This standard is raised to Issue 10 to update its content.

HISTORICAL RECORD

This standard supersedes the following:

Def Stan 81-41 (Part 6) Issue 9 dated 09 October 2015
Def Stan 81-41 (Part 6) Issue 8 dated 30 April 2013
Def Stan 81-41 (Part 6) Issue 7 dated 27 may 2010
Def Stan 81-41 (Part 6) Issue 6 dated 11 June 2004
Def Stan 81-41 (Part 6) Issue 5 dated 20 August 1999
Def Stan 81-41 (Part 6) Issue 4 dated 15 July 1996
Def Stan 81-41 (Part 6) Issue 3 dated 26 July 1991
Def Stan 81-41 (Part 6) Issue 2 dated 24 July 1984
Def Stan 81-41 (Part 6) Issue 1 dated 1 August 1981
DEF-1234-A, Issue 4, Section F, dated 1981
DG-11

a) This standard provides requirements and guidance for the marking of packaging for the use of the Ministry of Defence (MOD).

b) This standard has been produced on behalf of the Ministry of Defence (MOD) by Defence Equipment and Support (DE&S), Support Enablers Operating Centre (SEOC), Supply Chain Process (SCP), Packaging Policy (Pkg).

c) This standard has been agreed by the authorities concerned with its use and is intended to be used whenever relevant in all future designs, contracts, orders etc. and whenever practicable by amendment to those already in existence. If any difficulty arises which prevents application of the Defence Standard, DStan shall be informed so that a remedy may be sought.

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0 Introduction

Arrangement of Def Stan 81-41

Def Stan 81-41 is in six parts. More than one part may apply to any one packaging requirement. It is essential that all parts be considered and used where appropriate. Part 6 covers the MOD requirements for Marking, Labelling and otherwise identification of packaged materiel by means of their packaging.

The arrangement of the complete series of Def Stan 81-41 Packaging of Defence Materiel is given below:

Part 1: Introduction to Defence Packaging Requirements

Part 2: Design

Part 3: Environmental Testing

Part 4: Service Packaging Instruction Sheet (SPIS)

Part 5: Production Processes

Part 6: Package Marking

Contents

Figures

Tables

Packaging of Defence Materiel: Part 6 - Package Marking

1 Scope

1.1 This Part of the Defence Standard relates to the Ministry of Defence requirements for the marking of packaging for identification of packaged materiel and logistics requirements, (handling, storage and transport).

1.2 It does not apply where the approved design or standardization documents for the marking of packages for specific materiel decree otherwise e.g. the marking of packages for ammunition and explosives governed by Def Stan 00-810.

Note: Def Stan 00-810 under DEFCON 130 "Packaging for Explosives" shall be taken as the controlling document for the marking of Explosives stores, Explosives packages and Unpackaged Explosives articles unless a direct reference is made to paragraphs in Def Stan 81-41'.

1.3 It does not supersede or replace requirements set by legislation, statutory instrument, national or international agreements or regulations. It may be additional to these requirements where they permit.

2 Warning

Refer to section 1 for Warning

3 Normative References

3.1 Refer to section 3 for Normitive references

Note: Obsolescent Defence Standards are applicable for legacy equipment only.

3.2 Reference in this Standard to any normative references means in any Invitation to Tender or contract the edition and all amendments current at the date of such tender or contract unless a specific edition is indicated. Care should be taken when referring out to specific portions of other standards to ensure that they remain easily identifiable where subsequent amendments and supersession's might be made. For some standards the most recent editions shall always apply due to safety and regulatory requirements.

3.3 In consideration of clause **3.2** above, users shall be fully aware of the issue, amendment status and application of all normative references, particularly when forming part of an Invitation to Tender or contract. Correct application of standards is as defined in the ITT or contract.

3.4 DStan can advise regarding where to obtain normative referenced documents. Requests for such information can be made to the DStan Helpdesk. Details of how to contact the helpdesk are shown on the outside rear cover of Defence Standards.

4 Definitions

Refer to section 3 for Definitions

5 Detailed Requirements

5.1 Application of markings. Fig 3 gives a guide to the application of markings at each stage of packaging. There are 5 types which will be dealt with separately;

a) Identification Markings

b) Military level markings

c) Packer's markings

d) Warning and Information markings

e) Consignment Markings

5.2 NATO Markings. Note that where there is a requirement to be marked for NATO operations etc., NATO logistic standards e.g. STANAG 4281, are applicable. When this requirement exists they shall be included in addition to those in this standard, however where there are conflicts the NATO requirement shall apply.

5.3 Date Markings. Unless otherwise specified where a date is required in the text the format should be DD MMM YYYY, (e.g., 12 Aug 2015), if encoded in a barcode symbol the format should be YYMMDD (e.g., for 29th August 2015 it would be 150829).

5.4 Specialized marking and labelling. There are standards covering materials and products, which have; specialist or statutory additional labelling and/or marking requirements to that specified in this standard, where required or relevant they shall be applied. The following is an example of this type of requirement.

5.4.1 Rubber, Synthetic Rubber and Elastomer (Aviation) Materials.

5.4.1.1 As a class of material these are usually sensitive to ultraviolet light and need to be packaged within material opaque to that part of the spectrum. Usually this means within a fully opaque (non-transparent) or black polyethylene film envelope, so the package labelling shall be on the exterior of the envelope (to be seen), as well as inside.

5.4.1.2 There are various national & international standards applicable covering storage, marking & labelling of these products depending on the product and source.

This marking can include; 'Cure Date', 'Life of Item', 'Use by Date' and / or a Lifing group (A, B, C, or X – Groups/Types I to V). Where standards specify a Lifing group and this is required to be marked the applicable standard shall also be included in the marking, otherwise the relevance can be lost.

5.4.1.3 Where the 'Life' is quoted as being infinite (Group X) there is no real need for; an Expiration/Expiry, Use by Date, Life Group or similar as there is no such date because it is not a 'Life' item. For such items consideration should also be given to whether a 'Cure Date' is relevant, if not it should not be used.

NOTE: In some areas Group X, despite specified standards, is considered to be a maximum of 10 years, where this is so an Expiry Date should be used.

5.4.1.4 For general usage of these markings see para **11.4**. An Expiry/Expiration date shall be used instead of; 'Life of Item', 'Use by Date', 'Cure Date' or the use of a Lifing Group, for packaging.

5.4.1.5 Standards known to be relevant for MOD use in this area include;

a) BS ISO 2230:2002 'Rubber products Guidelines for storage'; (which specifies the controlled storage and packaging of vulcanized rubber products and requires the rubber classification to be included in the marking).

b) BS ISO 27996 'Aerospace fluid systems Elastomer seals - Storage and shelf life'.

c) BS 4F 68 'Controlled storage of vulcanized rubbers for use in aerospace applications'.

NOTE: With some standards an expiration date needs to be specified where it is required; reference to the standard may not be sufficient.

5.4.1.6 Where marking & labelling are specified by reference to particular standards, as above, such requirements shall be included in addition to those in this standard.

5.4.2 Direct Marking of Packaged Materiel

There are instances where there is a requirement to directly mark an article that is to be or is already packaged, e.g., Direct Part Marking (DPM). This is not within the scope of this standard, 81-41 (Part 6).

There are other standards that cover this aspect whether for identification, asset tracking or similar applications. For example; Def Stan 05-34 and Def Stan 05-132 "Marking of Service Material Items Using a Unique Item Identifier" (UII), and these should be used where appropriate.

However, there may be instances where it is necessary to replicate such markings onto one or more packaging layers; this should be indicated within the applicable standard or stated within the contract. When this is necessary, unless otherwise specified, they should be treated as extra 'Identification Markings' in addition to those required by this standard.

Note: In these cases it is assumed the UII as a DPM contains more information than just the Serial No.

6 Primary Packaging Marking.

The Identification label applied to the outside of the primary package contains data elements presented as Human Readable Information (HRI) and Machine Readable Information (MRI). Only the data elements described below shall appear on the label. Additional information such as manufacturer's logos may be included as approved by the Project Team contracting for the item, as long as they do not confuse or delay the process of item identification and accounting through either machine or human readable means.

6.1 The barcode symbologies used shall be as per STANAG 4329 'NATO Standard Barcode Symbology'. Unless otherwise specified, the barcode symbology for the MRI bar coding required by this document shall be PDF 417. The PDF 417 barcode must be printed on a contrasting background, e.g. black bars and marks on a white background in accordance with ISO/IEC 15438. The encoded data string shall conform to the syntax of ISO/IEC 15434 using the format code 06 (Data Identifier). The syntax and semantics of the barcode are described further, with examples of labels, at Annex B.

6.2 Mandatory data elements for the Identification label are:

a) **NATO Stock no. (NSN).** This shall consist of 13 alphanumeric digits without additional characters, e.g. prefix, spaces or dashes.

b) **NSN Description.** Name/description of the item (HRI only)

c) **Quantity in pack (Quantity), Primary Packaging Quantity (PPQ).** The actual number or quantity of items in the primary package, numeric only; i.e. "2" not "TWO".

d) **Unit of Issue (UOI), Denomination of Quantity (D of Q).** This shall be abbreviated to a two-letter code as in DEFFORM 96, e.g. "EA" (each), "PR" (pair) and "MR" metres.

e) **Unique Package Identifier (UPIN).** A package identifier assigned by the manufacturer, unique within the manufacturer's NCAGE, DUNS or GS1 Prefix supplier code, and used to assist in tracking and authentication.

f) **Manufacturer Name.** For information, i.e. if not shown elsewhere on the packaging (HRI only)

g) **Contract.** MOD's reference for the contract against which the package is being supplied.

h) **Purchase Order.** MOD's reference for the purchase order against which the package is being supplied.

6.3 Conditional data elements for the Identification label are:

a) **Serial Number.** This shall contain the manufacturer's serial number for the item, if the item is serially-controlled. If the Quantity in the primary package is greater than one, there may be more than one serial number.

b) **Unique Item Identifier (UII).** This single data element shall contain the concatenated data string resulting from the data elements held in the UII mark on the physical item, if so marked in accordance with DEFSTAN 05-132. A corresponding Serial Number must exist for each UII.

c) **Lot/Batch Number.** This shall contain the manufacturer's lot or batch number, if the item is lot- or batch-controlled.

d) **Asset Subject to Special Control Code (ASSC Code).** This data element shall be present for Assets Subject to Special Control. The ASSC alphanumeric code consists of up to 6 characters based on the restricting nation 2 digit ISO 3166 country code, the Wassenaar Arrangement Category Code and Sensitivity Lists if applicable or Munitions List Category.

6.4 The following information data elements shall also be included, as appropriate (see para 11.4), on the Identification label:

a) **Cure Date**. Also known as Production Date. This is applicable to lifed items only.

b) **Expiry Date**. This is applicable to lifed items only.

c) **Next Test/Inspection Date**. This is applicable to lifed items only.

d) **Manufacturer Part Number**. For information, i.e. if not shown elsewhere on the packaging (HRI only).

7 Packaging Level Marking

7.1 The required Military Level marking shall be as quoted in the contract or order and shall conform to the format shown in ANNEX A and comply with the requirements of **21.4** and **21.5**.

7.2 Trade Packaging (Level A) shall be marked with the bold text "Trade Package". Export Trade (Level C) packaging shall have the same text.

8 Packer's Marking

The packer's marking shall provide the following information:

a) Materiel manufacturer's name or initial(s)

b) Materiel contract or order number.

c) Packaging contractor's name or initial(s).

d) Packaging contract, order number or Service Depot Job Number.

e) Date of packaging.

f) Inspector's stamp.

NOTE 1; when an outer container encloses a number of other containers that have been packaged at widely different dates, the earliest date shown on any container enclosed shall be additionally marked on the outer container adjacent to, and in a similar manner to, the packers' marking, thus:

"EFFECTIVE DATE OF PACKAGING 'DDMMMYY'"

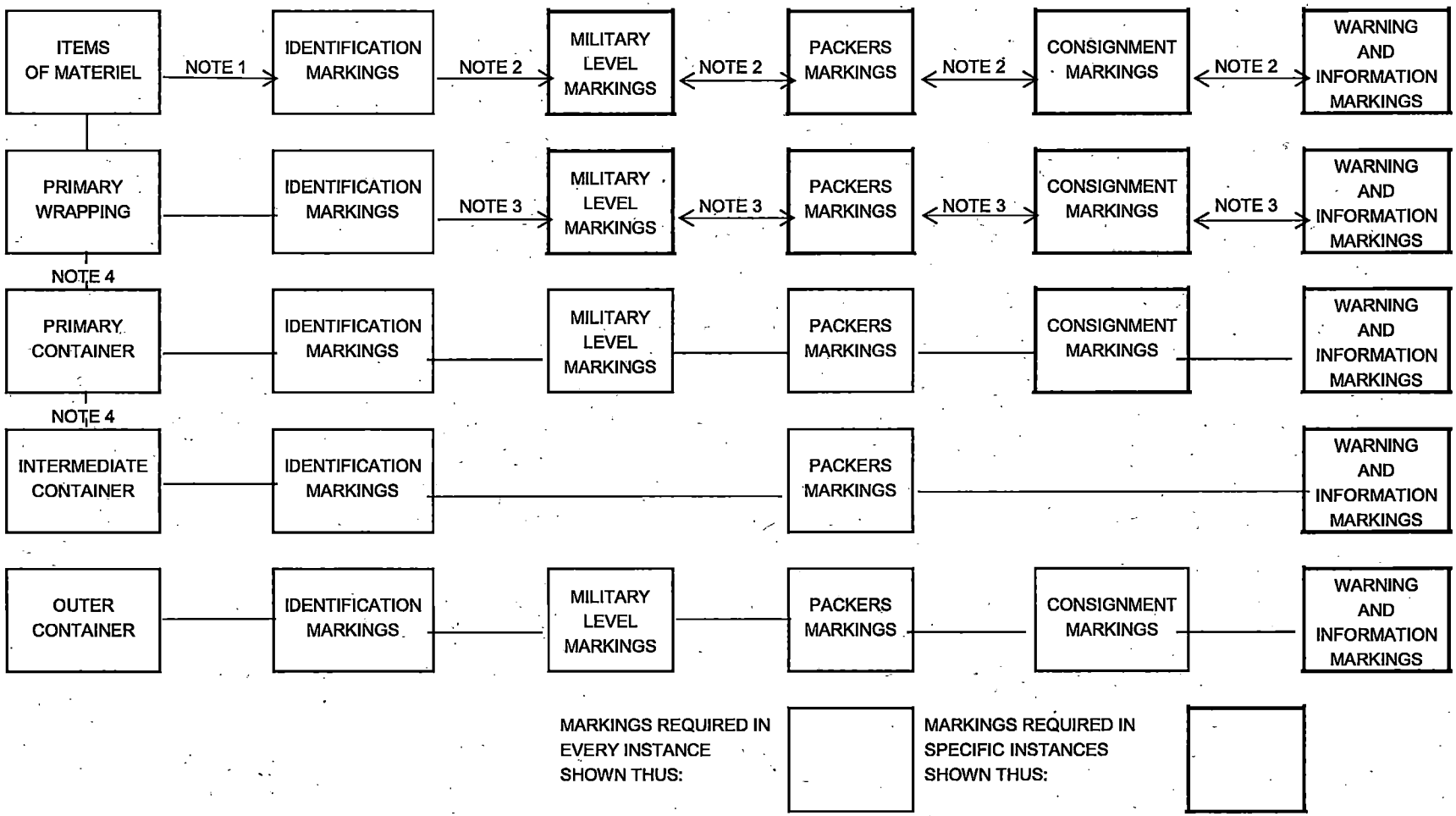


Figure 1 Applications of Markings

NOTE 1 When a soft film is used the initial markings shall be applied to the primary wrapping.

NOTE 2 Required if the item is to be dispatched loose or bundled.

NOTE 3 Required if the item is to be dispatched baled or bundled.

NOTE 4 If the application of a barrier at this stage obscures any markings they shall be repeated on the exterior of the barrier

9 Particulars of Modifications and Calibrations

9.1 Materiel, including some subassemblies, may be subject to modifications that do not involve a change of identification number, item name or maker's part number. Materiel may also require indication of calibration status. This is often noted on the item by a Modification (Mod) / Calibration (Cal) plate or label.

9.2 If items carry a modification and/or calibration record as a label or plate, a replica, either stencilled or printed, shall be affixed adjacent to the identification details at each stage of packaging. Unless otherwise specified, replicas of these plates or labels shall include the status of each subassembly incorporated where it is known.

9.2.1 The replicas of modification labels or plates shall be applied whether or not any modifications have been carried out.

NOTE: Marking of the actual packaged or un-packaged item of materiel is covered elsewhere e.g., by Def Stan 05-34 Marking of Service Materiel, and other standards.

10 Warning Markings

10.1 Illustrations. Examples of warning markings specified in packaging specifications are shown at **ANNEX A.** These examples are not exhaustive and the user should be aware that there are many more packaging labels not illustrated, mandatory and non-mandatory. The user should also be aware that non-MOD specific labels are available commercially.

10.2 Hazard warning labels and markings. These are usually mandatory when; using, supplying or transporting hazardous goods. They are concerned with hazards to personnel, the environment and other materiel. Nothing in this standard shall affect any obligation under current appropriate "supply" or "carriage" of dangerous goods regulations. Items supplied to this Defence Standard that may travel overseas, shall be marked, documented, packaged and labelled in accordance with the relevant international regulations and conventions on the carriage of dangerous goods and other statutory requirements.

10.2.1 Magnetized material items. All packages containing an item including a permanent magnet, or with a magnetic field that may be a hazard to navigation shall have applied the 'Magnetized Material' label as required by air transport dangerous goods regulations.

10.2.2 Asbestos items. The appropriate Health and Safety marking must be applied to all packages containing asbestos or products containing asbestos.

10.2.3 Manually handled and 'offset centre of gravity' loads. All packages designed to be handled manually, or that may be manually handled, must meet the Health and Safety Manual Handling Regulations. This means appropriate warning labels shall be applied. Packages of 3 kg to under 7 kg should have warning labels H0949A, H0949B or H0950 (or commercial equivalent), as appropriate, applied whereas packages of 7 kg and above shall have the warning labels applied.

10.2.4 Carriage of metallic mercury. When spillage of mercury from such items as open ended tubes could occur, e.g. certain barometers and mercury arc rectifiers, the maximum angle of tilt shall be marked clearly on warning labelling.

10.2.5 Items containing Beryllium, its alloys or its oxide. Where used in an article to be packed refer to Health and Safety Regulations. An example of a warning label to be used is 'G0703' noted in **Fig 10**

10.3 General warning labels and markings. These are usually not mandatory as per **10.2,** but are required either by this standard, other standards or contractual conditions. They are mostly concerned with hazards to the packaged materiel.

10.3.1 Electrostatic sensitive devices. These shall have caution labels applied, as defined in BS EN 61340-5-1, e.g. **Fig 10** G0707.

10.3.2 Magnetically sensitive items. The marking G0948 shall be applied to all packages containing magnetically sensitive items. Additional mandatory marking shall be in accordance with the requirements of Def Stan 81-130.

10.4 Pictorial and other handling markings. Where not specified by mandatory regulations and where detailed in the packaging specification these shall be in accordance with BS EN ISO 780, e.g. 'Fragile', 'Use No Hooks', 'Store away from Sun / Heat', temperature limits etc. These are obtainable commercially.

10.4.1 Centre of Gravity Markings. When the mass of a packaged item is not evenly distributed or the container exceeds 280 dm^3 capacity or 3 metres in length the following markings shall be applied;

a. A line locating the centre of balance shall be extended up from the bottom edge of both sides. This line shall be 25 mm wide by at least 75 mm long. It shall be identified, by stencilling or printing, in characters at least 25 mm high the text "CG" or when there is space "CENTRE OF GRAVITY" immediately above or alongside the mark.

b. Optionally, BS EN ISO 780 symbol ISO 7000, No. 0627' may be used.

10.4.2 Case stability. Where the shape of the item dictates using a container of unusual aspect ratio making it vulnerable to toppling, the exterior of the container shall be marked clearly with the following warning:

"DURING HANDLING, TRANSIT AND STORAGE, ENSURE CONTAINER IS SECURED TO PREVENT TOPPLING"

10.5 Additional Warning Markings. Where warning markings additional to those noted here are required, they shall be fully detailed in the packaging specification.

11 Information Marking

11.1 Examples of information markings specified in the packaging specification are shown at **Fig 12.** Where information markings additional to those shown are required, they shall be fully detailed in the packaging specification.

11.2 Desiccated packages. The marking T0195 shall be applied to all hermetically sealed desiccated packages and T0059 on all other desiccated packages.

11.3 Gross package mass/external dimensions. The Gross Package Mass/External Dimensions marking T0737 shall be applied to all packages exceeding 3 kg gross mass.

11.4 Shelf-Life Markings. This largely follows the requirements of STANAG 4281. When applicable these markings shall be shown below the item identification marking on unit packages intermediate and exterior containers or unpacked items (see Figure 15). Items that do not deteriorate do not require shelf-life markings. When two or more unit packs bear different Cure / expiry / inspection / test dates, only the earliest date shall be shown on the shipping container. There are two types of shelf life, Type I and II.

11.4.1 Type I shelf-life items. Supply items that are no longer serviceable after the expiry date, i.e. items of supply with a definite non-extendible period of shelf life. This is normally for Health and Safety reasons. For these items an Expiry (Expiration) Date shall be applied. For pharmaceuticals, biological items and potency dated materials; the expiry date shall be marked as required by statute, contract and the applicable standard. Unless otherwise specified the text format shall be 'DD MMM YYYY', e.g. Expiry Date: - 12 Aug 2012 not 12 008 2012.

11.4.2 Type II shelf-life items. Supply items, for which the prescribed storage life can be extended after completion of a prescribed inspection / test / restorative action in accordance with the pertinent technical specifications and other directives. Here the expiration date is the appropriate Inspection / Test Date; this shall be applied using a text date format as per 11.4.1. e.g., Next Test / Inspection Date: - 12 Aug 2012. This is the date on which shelf life expires, *unless* extended as a result of inspection or test.

There shall be an appropriate number of spaces for additional inspection / test dates. These spaces shall be used when the initial date is lined out and subsequent inspection/test/expiry dates are applied.

NOTE 1 Desiccated packs 'shelf-life' is dependent on storage conditions where date of last charge is more useful in determining the inspection / recharging date.

NOTE 2 See **Fig. 11** and labels T057 and T058 for formats to be used.

NOTE 3 At the time of writing the Type II in STANAG 4281 uses the date format MM/YYY e.g., 12/012

11.4.3 Shelf-Life and In-Service Life. Unless otherwise specified by the manufacturer and / or supplier it is understood that the end of Type I - Shelf Life (or non-extended Type II), as indicated by an Expiry Date, indicates the last day it is known that the item has a full in-service life or known useful potency; as defined by the manufacturer / Supplier / Project Team or other relevant authority. That is, given suitable; packaging, handling, storage and transportation.

11.4.4 Manufactured On Date (MO or MoD) Shelf life is sometimes indicated by this which relies on an information system to generate disposal and other dates. Type I & II shelf-life markings should be used in preference

11.4.5 Cure Date. This is a type of shelf-life indicator allowing the age of the item to be calculated and thereby allow an assessment to decide if the item is too old for use. This is similar to the MO date except it is used where a curing operation is carried out e.g., for rubber. Cure-dated items shall have any applicable expiry date shown by quarter and calendar year, e.g., 3Q2012.

For packaging, the Type I or Type II shelf life markings should be used instead. However, it may be suitable for marking the packaged item itself.

11.4.6 Where no day is given, the last day of the indicated month is the dead line for any action

11.5 Reconditioned Items. Where the packaged item is reconditioned, unless otherwise specified, the text "RECONDITIONED" shall be marked prominently on both ends and one side of the container.

11.6 Calibration Labels. Where the packaged item is calibrated a mark / label shall be applied to the barrier/inner packaging and outer packaging layer with the text "Calibration Date: MMM/YY" (e.g., Aug/12). An example of a typical label is noted in **Fig. 11**.

11.7 Barrier Packaging. Where a package makes use of a climatic barrier a label shall be applied to the barrier and outer packaging stating "Do not Open Until Required for Use", see **Fig. 11**. This is intended to reduce the number of unnecessary openings of such packages and the subsequent requirement for fresh desiccant etc. It does not mean the package should not be opened on the due date for inspection or refreshment.

11.8 Cushion Packs. Where a packaging design (e.g., a SPIS, see Def Stan 81-41 Part 4) requires an item to be transported in a cushion pack a label should be applied to the inner container / packaging stating "Requires Further Cushioning for Transit", see **Fig. 11**.

11.9 Material Recycling Logos & Marks

11.9.1 In order to fulfil the recycling requirements of the waste reduction and sustainability policies of the MOD, and Government it is necessary that, where appropriate, packaging materials shall be marked with a logo or mark that identifies the material used for recycling purposes. They shall be applied directly to the materials surface, printed, embossed or moulded as appropriate and shall be easily identifiable.

NOTE 1 This does not apply to the items packaged to which different requirements apply.

NOTE 2 It is preferable to have the material identified as this allows pre-sorting of waste packaging material before disposal. Pre-sorted waste usually has a premium over mixed waste.

11.9.2 The basic logo / symbol. The original symbol / logo indicating the ability of a material to be recycled is the Mobius arrow symbol, consisting of three arrows bent to form a triangle (in outline or solid); as noted below. Without other information it indicates the material to which it is applied may be recycled.

Figure 2 Basic Recycling Symbol

11.9.3 Fibreboard. The basic logo is most commonly used on fibreboard and other paper-based board containers, frequently with the percentage of recycled material used in the centre of the symbol, e.g., 30%.

11.9.4 Plastics recycling logo. This is a simplified form of the above symbol with an added numerical and text code to indicate the resin used (developed by the American Society of Plastics Industries or SPI). This form was developed to allow the easy embossing of the symbol onto plastics containers such as bottles, but has been adopted for other forms of marking. These symbols should be used on all plastics; packaging materials, containers and components.

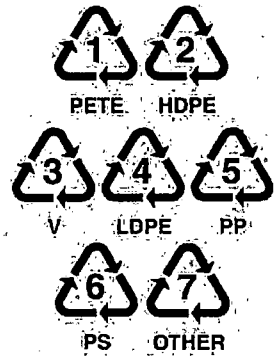


Figure 3 Plastic Resin Recycling Logo

Table 1 - Numerical Code Allocation to Specific Plastic Resins

Numeric Code	Text	Plastic Resin
1	PETE	Polyethylene Terephthalate (PET)
2	HDPE	High Density Polyethylene
3	V	Polyvinyl Chloride (PVC)
4	LDPE	Low Density Polyethylene
5	PP	Polypropylene
6	PS	Polystyrene
7	OTHER	Other resins and laminates

NOTE 1 While the symbol indicates the material can be recycled this is only relevant where the collection/recycling facilities exist. This can be a problem for PVC and PS.

NOTE 2 The seven codes are only for the most commonly used resins. There are variations, the most common being the prefix of 'R' before the text e.g. RPP indicating a recycled material content.

NOTE 3 By agreement the text for Symbol 7 can be modified to indicate the 'other' resin using the resins accepted acronym, e.g., PMMA for Poly-methyl-methacrylate (Perspex), PC (Polycarbonate), ABS (Acrylonitrile-butadiene-styrene) etc. Acronyms for the resins shall be taken from BS EN ISO 1043-1 where noted.

NOTE 4 Where there are severe space restrictions the acronym can be omitted, e.g., typically non-film components of less than 25 grams

11.9.5 International variations of the SPI logo. There have been extensions to the original seven codes, most not plastic and not all relevant to packaging, some are noted below. It is not certain how widely used these are but they are acceptable where there is no industry standard.

Table 2 - Numerical Code Allocation Extension to Non-Plastic Materials

Numeric Code	Text	Material
Batteries		
8	Pb	Lead or Lead-Acid
9	Alk	Alkaline, e.g., Manganese based
10	NiCd / NiCad	Nickel Cadmium
11	Nimh / NiMH	Nickel Metal Halide
12	Li	Lithium
13	SO	Silver Oxide
14	ZC	Zinc Carbon
Paper		
20	PAP	Fibreboard / cardboard
21	PAP	Other or mixed paper
22	PAP	Paper
Organic Material		
50	FOR	Wood
51	FOR	Cork
60	COT	Cotton
61	TEX	Jute
62 - 69		Other textiles
Glass		
70	GL	Mixed Glass container
71	GL	Clear Glass
72	GL	Green Glass
73 - 79	GL	Other types of glass, e.g. leaded, metal-backed etc.

11.9.6 Metals. There are several recycling symbols for steel and aluminium. Where an accepted symbol exists it should be used.

Aluminium symbol

Steel Symbol

Figure 4 Metal Recycling Symbols

11.9.7 Compliance Schemes logos. These schemes operate systems to which subscribers assign the recovery and recycling of the material or acquire some certification of properties or recycling. Normally, this means a specific logo is marked on a package to identify items to which the system applies. Usually these organisations only have a regional (European) or National reach. Common ones include; RESY (the text RESY within a Mobius arrow symbol) and Grune Punkt (Green Dot) which is not so much a recycling mark as a trademark. These systems should be used where they operate. Other schemes may just indicate that a certain degree of recycling, or recyclability has been certified.

11.9.8 Sustainable materials logos. These include schemes such as The Forest Stewardship Council (FSC) which has a logo to identify products which contain wood from sustainable managed forests independently certified in accordance with the rules of the Forest Stewardship Council A.C. Such logos shall be employed where possible to enable use of sustainable material in packaging.

Figure 5 Forest Stewardship Council Logo

11.10 Other Regulatory Information Markings. There are markings required by treaty, regulation, national or international not noted here but should be used where appropriate. An example, is the need to mark Wood (timber or lumber, generally not including processed timber products like plywood) to indicate finished products (crates, wooden boxes, dunnage etc.) compliance to ISMP-15 by using the IPPC mark. ISPM-15 generally applies to items transported between countries but not if they do not leave the country of origin.

12 Consignment Markings

These are at least in part covered by the markings noted earlier in this document and noted in documents such as DEFCON 129; this does not require multiple copies of the information on any one label, or multiple labels with the same information except where specifically required.

12.1 Each consignment package shall be marked with at least the following details;

a) Name and address of consignor;

b) Name and address of consignee (as stated in the Contract or Order);

c) Destination where it differs from the consignee's address, normally either:

i) The delivery destination/address; or

ii) The transit destination, where delivery address is a point for aggregation / disaggregating and/or onward shipment elsewhere;

d) If relevant, the serial number of the relevant Advice and Inspection Note (MOD Form 640); or the unique order identifiers of the CP&F Delivery Label/Form

e) the full thirteen digit NATO Stock Number (NSN)

12.2 Military level packaging should also be marked with, and Commercial, Military Commercial (Trade and or Export Trade packaging) shall be marked with the following;

a. description of the packaged Item / Article, e.g., the proper item name;

b. the full thirteen digit NATO Stock Number (NSN)

c. the Primary Packaging Quantity (PPQ);

d. maker's part / catalogue, serial and / or batch number, as appropriate;

e. the Contract number or Contract and Order number when applicable;

f. The text "Trade Package" as per **7.2.**

g. Shelf life of item where applicable, see paragraph **5.4 & 11.4**

h. Any statutory Hazard markings and any handling markings, including the mass of any package which exceeds 3 Kg gross;

i. Any additional markings, including bar coding, specified in the Contract and in this document.

12.3 Address markings. The address of the consignee shall be as stated in the contract or order.

12.4 Package numbering for consignments. The package number specified below shall be shown on the address label.

12.4.1 From consignors. The package number shall be the serial number of the relevant advice and inspection note. If a consignment consists of more than one container, numbers shall be added to the package numbers to indicate the number of containers in the consignment and the serial number of each container.

For example, if four containers constitute one consignment the additional numbers will be; 1 of 4, 2 of 4, 3 of 4, and 4 of 4 respectively. If one consignment is covered by more than one advice and inspection note, the serial numbers of all such notes shall be shown on each container.

Thus, if the above consignment is covered by two advice and inspection notes, the serial numbers of which are 2479 and 2510 and the container to be marked is the third of four containers, the package number will be 2479/2510-3 of 4.

12.4.2 From Service depots and maintenance units. For the Navy and Army Departments the package number shall be as directed. For the Air Force Department the package number shall be the relevant issue voucher serial number.

12.5 Shipping Labels. Unless otherwise stated the shipping label shall conform to the requirements of STANAG 2494. The information depicted shall comprise of the above information and that noted in STANAG 4281 Appendix 1.

13 Markings for Containers Enclosing Miscellaneous Items

When such a container is to be consigned to a Service depot, the items shall be limited to those listed in a particular class / group or other reference for Navy materiel, or in a particular Section or DMC of the Vocabularies of the Army or Air Force. The container shall be marked with the appropriate Class / Group or section and the abbreviation MISC., e.g. 'Group' / MISC

14 Government Property Mark

This Mark, also known as the 'Pheon' or Broad Arrow Mark, should be applied where required as per Def Stan 05-34 Section C (4). Where the materiel itself cannot be marked, e.g. liquids, the receptacle and/or other packaging should be marked.

15 Methods of Marking

15.1 General

15.1.1 Depending upon the nature of the materiel and the type of surface conditions of the container or wrapping material, marking will be either by affixing printed labels or tags or by printing or stencilling directly onto containers or wrappings.

15.1.1.1 All materials used for package marking shall conform to UK essential environmental requirements with respect to heavy metal content.

15.1.2 Labels or markings may be identified by the use of the model label numbers used in ANNEX A. These numbers are not required on the labels or markings.

15.1.3 All surfaces on which labels or markings are to be applied shall be clean, undamaged, free from contamination and clear of obstructions (e.g. edges, corners, battens or handle brackets) liable to render markings difficult to read. Any label or marking not relevant to the consignment shall be removed or obliterated.

15.1.4 Labels or tags shall be used to apply barcodes on wooden containers and on surfaces that may absorb, smudge, obscure or otherwise distort the integrity of printed barcode symbology marking(s).

15.1.5 Base material, e.g. paper, shall exhibit a high "print contrast signal" and "opacity". The quality of any base material stock used should not be compromised when using automatically read labels, e.g. barcodes.

15.1.6 Hand Written labels / markings are not considered best practice and should not be used in any military packaging, commercial or military level.

15.2 Types of labels. The following shall be selected with reference to **Table 3:**

a) Labels, plastic, self-adhesive.

b) Labels, paper, self-adhesive.

a) Labels, printed (gummed or un-gummed).

b) Labels, linen.

c) Tags, blank, stringed (for identification markings).

d) Holders, card label, tinplated with card insert (for consignment markings).

15.3 Printing on labels.

15.3.1 Type of printing ink

15.3.1.1 The ink used in applying markings or writing on labels shall be waterproof and non-fading.

15.3.1.2 Inks used for bar coding shall be waterproof, non-fading and capable of coping with a light source complying with the spectral conditions specified in STANAG 4329.

15.3.1.3 All Inks shall be free from volatile organic solvents where properties are not degraded. If applied directly to the packaging material the inks used shall not degrade that material.

15.3.2 Print characters

15.3.2.1 For all applications except bar coding, the printed characters shall be spaced uniformly over the available label surface and shall conform to the following:

a) Be of uppercase characters (capital letters) only, of simple outline and without embellishment, i.e. San-serif.

b) Have a bold line, the ratio of the character height to thickness of line not less than 6:1, with minimum thickness 0.4 mm.

c) Character height shall be not less than 2.8 mm (8 point) and normally 4.1 mm (12 point); except on warning labels larger than 80 mm in any dimension, when the character height shall be not less than 9.1 mm (26 point) for the text describing the nature of the hazard.

15.3.2.2 A typical style of character that is acceptable is Gill Sans Bold Condensed with size from 3.5 mm (10 point) to 4.9 mm (14 point) for general markings and 12.6 mm (36 point) for warning markings on labels that are over 80 mm in any dimension.

15.3.2.3 Unless print resolution is 118 dpcm (300 dpi) then dot matrix print characters sized from 2.8 mm (8 point) to 4.1 mm (12 point) are only acceptable for general markings, e.g. identification markings and information markings."

15.4 Printing on containers.

15.4.1 Where paint is used; this shall be one of the paints listed in Table 3.

15.4.2 Where Ink is used; ink as described in **15.3** shall be used.

15.4.3 The size of letters and figures shall be such that they may be easily read and are in proportion to the size of the container (see **21.3.1**). For bar coding; the size of letters and figures shall be in accordance with STANAG 4329.

15.5 Printing of barcodes. One of the following recommended methods shall be used:

15.5.1 Laser printing or photographic reproduction. Labels produced are suitable for all MoD applications.

15.5.2 Thermal transfer. Produces labels suitable for all MoD applications when protected in accordance with **18.1**, otherwise they are only suitable for short-term use.

15.5.3 Direct thermal printing. This process shall not be used for MoD barcodes.

15.6 Quality of printed barcodes. PDF 417 Barcodes shall be printed to meet the standard ISO/IEC 15415 - Bar code symbol print quality test specification - Two dimensional symbols and achieve a minimum overall grade of 1,5 (C) when verified using a calibrated verifier meeting the standard ISO/IEC 15426-2 - Information technology — Automatic identification and data capture techniques — Bar code verifier conformance specification — Part 2:Two-dimensional symbols..

16 Stencilling on Containers

The marking shall be applied by brushing or spraying over a sharply cut stencil with one of the paints listed in **Table 3**. Letters and figures shall be such that they may be easily read and are in proportion to the size of the container, see **26.7.** Barcodes shall not be stencilled.

17 Methods of Affixing Labels

17.1 Labels, tags etc., shall be affixed such that they shall not be wrinkled, creased or otherwise deformed or damaged in any way that may affect legibility.

17.2 Labels, paper or plastics, self-adhesive. These shall be affixed by removing the protective peel-off backing paper and then pressing firmly into the required position.

17.3 Gummed labels. Gummed labels shall be affixed by moistening the adhesive backing and then pressing firmly into the required position.

17.4 Printed tape. Labels consisting of tape, pressure-sensitive adhesive, BS 3J 12, shall be affixed by pressing firmly into the required position.

17.5 Un-gummed labels. Except when the labels are enclosed in transparent plastics envelopes, see 19.1.3, they shall be affixed by applying the appropriate adhesive to the surface to which they are to be applied and pressing firmly into position.

17.6 Linen labels. Linen labels shall be affixed by stitching, using the twine listed in **Table 3**. The stitches shall normally be spaced not more than 25 mm apart. The final stitch shall be securely locked.

17.7 Tags, blank, stringed. A gummed or un-gummed label shall be affixed to the tag as detailed in **17.2** and **17.3** and the tag then tied firmly to the item.

17.8 Holder, card label, / Packaging List Protector; corrosion protected metal (e.g., tinplated). These shall be affixed to timber by clout nails with a minimum length of 12 mm. Nails whose length exceeds the thickness of the timber shall be properly clinched in line with the grain of the timber. The excess length of the nail shall be flush with the surface of the timber. The label, usually on card, should be inserted within.

18 Methods of Protecting Labels

Exterior paper labels, including all barcode labels, shall be protected by one of the following:

18.1 Tape, pressure-sensitive adhesive (waterproof, transparent); this should be Def Stan 81-145 Type 3.

NOTE: The tape used should be capable of not yellowing or otherwise degrading when to be used long term (over 5 years) so that it does not; obscure the label text, cease to remain affixed or fail to provide protection.

18.2 A coating of adhesive emulsion, Polyvinyl Acetate, Def Stan 80-132. (Not suitable for barcode markings.)

NOTE: The label adhesive should be allowed to dry completely before any label protective is applied.

19 Methods of Protecting Documents Accompanying Packages

19.1 Documents* that accompany a package shall be placed inside an envelope in accordance with Def Stan 81-17, which shall then be secured to the package by one of the following methods:

19.1.1 **Bales**. Beneath a patch of Hessian, sewn on as specified for linen labels

19.1.2 **Wooden Containers**. Beneath a sufficiently large packing list protector (PLP), tinplated (or otherwise corrosion protected) metal or plastic. It shall be adequate to withstand envisaged transportation, handling and storage and shall be securely attached.

Note: Was to obsolescent Defence Standard 81-19

19.1.3 **Fibreboard or plastics containers**. Within a plastics document pouch, which shall be; transparent, tough enough to withstand envisaged transportation and be securely attached by suitable adhesive or tape.

19.1.4 **Other types of containers**. This is to be stated in the packaging specification or contract.

Note: * This includes; Packing Notes, Vouchers, CP&P forms or any other document that needs to accompany a packaged item.

Table 3 - Items and Materials for Package Marking

MATERIAL	SPEC NO	REMARKS	NATO SUPPLY CLASSIFICATION	NAVY DEPT RATE BOOK CLASS/ GROUP	ARMY DEPT COSA SECTION NO	AIR FORCE DEPT VOCABULARY SECTION NO
Paint marking	Def Stan 80-68 (Obsolescent)	This paint is for applying all types of markings to unpainted, painted or varnished cases, crates and drums and to sacks, etc., by one of the following methods: (a) Brushing, (b) brush stencilling, (c) spray stencilling, (d) silk-screen stencilling, (e) roller stencilling.	8010	0442	H1	-
Paint, marking, paste	Def Stan 80-69	This paint, paste, is for applying all types of markings to unpainted, painted or varnished cases, crates and drums and to sacks, etc., by the use of rubber or gelatine type processes, the application of the paint, paste, to the type being by means of a suitable roller.	8010	-	H1	-
Protectors, packing list, tinplated	Def Stan 81-19 (Obsolescent)	This is a varnished tinplate cover for attachment to wooden containers. For the protection of documents accompanying materiel, which are required to be readily available without opening the container. Available in two sizes, 145 x 82 mm and 158 x 104 mm.	8105	0264	H4	40D
Tags, blank, stringed	Commercial	A paper label for use in applying markings directly to materiel or to primary wrappings. Markings are printed direct on to the label or a printed paper label is affixed to it. Maximum 65 x 30 mm.	-	HMSO	HMSO	HMSO
Tape, pressure-sensitive adhesive (identification tape)	BS 3J 12	A water-resistant transparent tape that can be printed with a legend on an interior surface of the film (or laminated films) to which a coloured adhesive (normally white) can form a background. For use in applying markings usually of a 'standard warning' nature to containers and materiel.	-	-	-	-
Tape, pressure-sensitive adhesive (waterproof transparent)	Def Stan 81-145 Type 3	In this document; for the protection and, if appropriate, the affixing of paper labels.	7510	0462	H4	32B
Natural fibre cords, lines and twines	BS 6125 (Withdrawn)	Twine for affixing linen labels to containers manufactured from textiles. It shall be of 400 N minimum breaking load and rot-proofed in accordance with BS 2087.	4020	0330	H2	32A
Adhesive, emulsion, polyvinyl acetate	Def Stan 80-132 (Obsolescent)	A water-resistant adhesive for affixing paper labels. For use on; lined and unlined chipboard, corrugated board, aluminium, glass, and painted surfaces. Not to be used on galvanized or tinplate surfaces. An additional coating applied to the label face after affixing will render it water-resistant and protect the label. Not suitable for barcode markings.	8040	–	H1	–

Table 3 - Items and Materials for Package Marking (continued)

MATERIAL	SPEC NO	REMARKS	NATO SUPPLY CLASSIFICATION	NAVY DEPT RATE BOOK CLASS/ GROUP	ARMY DEPT COSA SECTION NO	AIR FORCE DEPT VOCABULARY SECTION NO
Envelopes, packing documents, water resistant, tongued and slotted	Def Stan 81-17 (Obsolescent)	A water-resistant envelope made from paper, Kraft union. For enclosing documents accompanying packages; may be used in conjunction with protectors, packing list. Two sizes normally used; 114 x 51 mm & 127 x 70 mm.	8105	0462		40D
Holders, card label, tinplated	Def Stan 81-19 (Obsolescent)	A tinplated holder for attachment to wooden containers and bundled items. The card inserts are readily removable for reversing or renewing by straightening the retaining lugs and withdrawing. For use in consignment marking. Two sizes of frame are normally used; 65 x 127 mm & 90 x 152 mm. The card inserts should be 3 mm less in both dimensions.	8105	0462	H4	40D
Labels, linen	Commercial	For all marking requirements for materiel enclosed in containers manufactured from textiles. Normal attachment is by sewing.				
Labels, plastics, pressure-sensitive adhesive	BS 4781	For general labelling excluding labelling of dangerous goods for carriage by sea.				
Adhesive coated labels for marine use	BS 5609	For the labelling of packages containing dangerous goods for carriage by sea.				
Nails	BS 1202-1 BS EN 10230-1	For affixing holders, card label and protectors, packing list to timber. They shall be galvanised and resin-coated.				

20 Means of Marking

Table 4 contains guidance on the means by which the markings specified in Section Three should be applied to the majority of materials used for wrapping and in the construction of barriers and containers. Material not included in this table shall be the subject of special instructions in the packaging specification.

Table 4 - General Marking Requirements

Materials For Wrappings And The Construction Of Barriers And Containers	**Methods Of Applying Markings**
Paper, wrapping, grease-resisting Paper, Kraft, creped (anti-bleed) Paper, tissue, wrapping Foil, metal, laminated sheet (heat-sealable) Paper, creped, Kraft union, reinforced Paper, Kraft union Paper, Kraft, bitumen impregnated Paper, textile wrapping	(i) Gummed label (ii) Stringed tag (iii) Un-gummed label affixed with the appropriate adhesive (iv) Un-gummed label affixed by applying tape, pressure sensitive adhesive (waterproof, transparent), over the label so that the label is overlapped on all sides (v) Self-adhesive label
Paper, wrapping, waxed Wrapping, grease-resisting, mouldable waxed Paper, Kraft creped, wax-dipped Polyethylene (PE) Other plastics	(i) Stringed tag (ii) Un-gummed label affixed by applying tape, pressure sensitive adhesive (waterproof, transparent), over the label and completely around the packed items so that the label is overlapped on all sides (iii) Self-adhesive label (PE and other plastics)
Polyethylene and other plastic films in the form of an envelope	Insertion of an un-gummed label inside the envelope so that the label markings are clearly visible outside the envelope. (See **26.6.1.1**)
Corrugated fibreboard Solid fibreboard	(i) Gummed label (ii) Un-gummed label affixed with the appropriate adhesive. (iii) Un-gummed label affixed by applying tape, pressure sensitive adhesive (waterproof, transparent), over the label so that the label is overlapped on all sides (iv) Printed direct on to board. (v) Self-adhesive label

Table 4 - General Marking Requirements (Concluded)

Materials for Wrappings and the Construction of Barriers and Containers	Methods of Applying Marking
Wood (timber, plywood, medium density fibreboard and oriented strand board)	(i) Holders, card label, tinplated, with card insert (ii) Stencilled direct on to the wood (iii) Painted direct on to the wood (iv) Un-gummed label affixed with the appropriate adhesive (v) Self-adhesive label
Aluminium and tinplate (unpainted)	(i) Un-gummed label affixed with the appropriate adhesive (ii) Stencilled direct on to the metal (iii) Painted direct on to the metal (iv) Self-adhesive label
Painted metal	(i) Stencilled direct on to the painted surface (ii) Painted direct on to the painted surface (iii) Self-adhesive label
Hessian	Linen label sewn on
Plastics (Acrylonitrile-Butadiene-Styrene (ABS), Polypropylene (PP), High Density Polyethylene (HDPE))	Self-adhesive label

NOTE: For accompanying document(s) protection see clause 19 and 21.2

21 Size of Markings

21.1 Paper or plastics labels

21.1.1 The labels' minimum dimensions are dependent on the package size. Where possible the minimum size shall be in a ratio of, approximately, 1:50 to the package / container face to which it is applied. The character height shall be as specified in **15.3.2**.

21.1.2 The diamond hazard labels dimensions shall be as specified in the transport of dangerous goods regulations, normally a minimum of 100 x 100 mm. Other transportation of dangerous goods warning labels, e.g., 'Magnetized Material' and 'Orientation' dimensions shall also be as specified in the appropriate dangerous goods regulations.

21.1.3 Warning labels noting 'Contains Asbestos' shall be as specified in the appropriate Health and Safety at Work Etc. Act regulations, normally 75 x 150 mm or 25 x 50 mm.

21.1.4 Military Packaging Level labels J, N and P, (respectively T0743, 747 and 748 in ANNEX A), shall be 40 x 40 mm or 100 x 100 mm as required, see also **21.5.4**.

21.2 Holders, card label, tinplated (e.g., Def Stan 81-19 (Obsolescent))

21.2.1 Where applicable containers shall use holders of sizes as follows.

Container Face Size (m^2)	Minimum Size of Holder (mm)
1	65 x 127
Over 1	90 x 152

21.2.2 These holders shall not be used on packages containing magnetically sensitive items e.g., those that require the use of the dangerous goods 'Magnetized Material' label. The card label when required may be retained in place using plastics, non-metallic or other non-magnetic material based holders, or flexible plastics holders, i.e. pouches (see **19.1.3**).

21.3 Stencilling and painting

21.3.1 The ratio of the minimum area of each type of marking e.g. identification, warning, consignment to the area of the container face to which the markings are to be applied shall be approximately 1:50.

21.3.2 The area of each marking shall be assessed as those of a rectangle that will just totally enclose the marking.

21.4 Combination labels. All separate package information labels may be combined onto a single label where economies can be obtained, see also **22.5** and Figure **15**. If adopted the following conditions shall be met:

21.4.1 Each label item shall conform to the relevant mandatory conditions or regulations, e.g. carriage and supply of dangerous goods regulations, and the requirements of this standard.

21.4.2 Barcodes shall not extend over more than one flat surface.

21.4.3 Combination labels shall include all the appropriate information required for a package surface and be presented on that surface.

21.4.4 The format of MoD labels shall be maintained, but they may be reduced in size, see **21.5**.

21.4.5 Each package layer is treated separately.

21.5 Labels for small containers. Labels on certain small containers may be reduced in size to fit the available surface, provided the following requirements are met:

21.5.1 Printed characters shall be spaced uniformly over the available label surface.

21.5.2 Characters shall be; uppercase, bold and san serif, e.g. Arial. The character size shall be not less than 6 point for Laser Printer Quality of 118 dpcm (300 dpi) and 2 point larger for good quality dot matrix print.

21.5.3 Hazard information text shall be a minimum of 2 points larger than general text on the same label.

21.5.4 The print quality shall not compromise clarity, legibility or durability of text.

21.5.5 Military packaging level labels shall retain the format as shown in ANNEX A. They may in this circumstance be reduced in size as a graphic, but shall be reduced emboldened and the military packaging level "letter" shall be at least twice the size of any surrounding text.

NOTE Mandatory hazard labels may be reduced in size to fit the space available provided this is permissible by the regulations and they remain both clear and legible.

21.6 'CP&F Label / Form DEFFORM129J.

21.6.1 This document is used for contract payment purposes as an alternative to the MOD Form 640, see DEFCON & DEFFORM 129j. It shares many of the characteristics of a combination label as noted in **21.4**.

21.6.2 Where applied, as a label there is no need to duplicate information that the CP&F label already presents. Space permitting, other informational markings, e.g. as specified in this document, may be added as per 21.4. One copy of the DEFFORM129J (as a label) shall be permanently attached to the packaging.

21.6.3 Where used purely as a financial form, i.e. not as a label, then **21.6.2** does not apply. A copy shall accompany the packaged item(s) in a document holder, e.g. a plastic pouch.

21.7 Commercial label stock. Blank commercial label stock may be used to reproduce labels, provided the mandatory requirements, e.g. colour, size and paper quality, are maintained and that clarity and durability are not compromised.

22 Disposition of Markings - General Requirements

The positioning of markings on containers shall be in accordance with **Fig 14** whenever the size of container permits and with stacking for storage taken into consideration. Where a package has a definable base or bottom, or other surface that is usually obscured, that surface shall not be used and the markings shall be reproduced on another surface.

23 Markings Applied Directly to Materiel

23.1 Identification markings. Materiel shall be identified by attaching a tie-on label directly to each item, except when:

a) The item is permanently and appropriately marked by engraving, stencilling (not applicable for bar coding) or by a firmly affixed plate.

b) A temporary protective has been applied, e.g., soft or oil films, grease etc.

c) A transparent film barrier is to be applied closely about the item, (see **25** and **26**).

d) The Primary Packaging Quantity (PPQ) is greater than one, and if the size of the item permits, then at least one item only in each PPQ shall be identified. That item shall be placed immediately beneath the lid or closure and the quantity markings on the label struck out.

e) The items are to be dispatched loose or bundled; a metal label shall be attached by means of wire, which has been treated to prevent corrosion.

23.2 Warning, information and consignment markings. These markings are not required on the item except when they are to be dispatched loose, or bundled.

24 Markings Applied to Primary Wrappings

24.1 Identification markings and barcode markings. Identification markings and barcode markings shall be applied to primary wrappings by means of a printed label.

24.2 Warning and consignment markings. Normally no warning or consignment markings are required on primary wrappings. However, when the materiel is to be dispatched without further packaging, the primary wrapping shall be regarded as a container and clause **26** shall apply.

25 Markings Applied to Barriers

Where the application of a barrier material obscures markings previously applied, those markings shall be repeated on the exterior of the barrier.

26 Markings Applied to Containers

26.1 Identification markings and barcode markings. These shall be applied to the exterior of all containers. If the container is transparent and flexible refer to **26.6.**

26.2 Packer's label. This label shall be applied to the exterior of all containers. If the container is transparent and flexible refer to **26.6**. Where practicable, the packer's label shall be applied to the same surface as the identification and barcode labels.

26.3 Military Packaging Level markings. These markings shall be applied to the exterior of all containers and adjacent to the identification markings. If the container is transparent and flexible refer to **26.6**.

26.4 Warning and Information markings. Warning and information markings, as required, shall be applied as near as possible to the identification markings. Additional markings required by statutory or international regulations shall be positioned as stipulated by these regulations.

26.5 Consignment markings. Consignment markings shall be applied to the exterior of outer containers only.

26.6 Transparent containers

26.6.1 Either of the following methods shall be used to apply markings:

26.6.1.1 An un-gummed printed label shall be placed within the envelope so that the markings are visible and readable externally.

26.6.1.2 Self-adhesive labels applied to the exterior may be used provided there is a sufficiently large flat area to bear the label. External labels should not be used where it could cause problems for material recycling.

26.7 Markings for Major Assembly Containers. For these the size ratio of 1:50 (marking to space available) can be inadequate, particularly for identifying stacked containers. Unless otherwise specified the alphanumeric text markings shall be stencilled in black using a bold, upper case san-serif font, e.g., 'Gill Sans Bold Condensed'. The characters shall be; the same size, of a size recommended in Def Stan 05-34 (unless otherwise specified), and evenly distributed across the available area. The markings shall be positioned on both ends and one side of the container.

26.7.1 Where available, and unless otherwise specified, the container "PK/" drawing number shall be marked prominently as above.

26.7.2 An example of the markings to be applied on 'Major Assembly" containers are depicted in **Fig 8.**

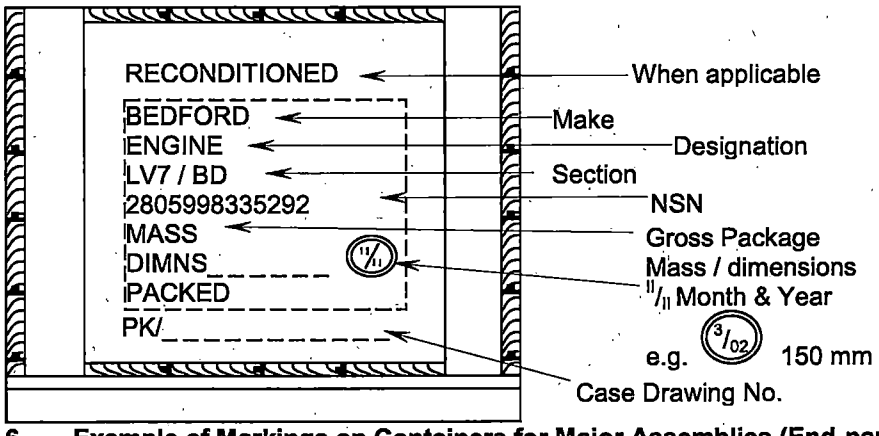


Figure 6 Example of Markings on Containers for Major Assemblies (End-panels)

27 Markings for Special to Contents Containers (STCC)

27.1 STCC containers are essentially codified reusable packaging designed for a specific store, which should not be used for any other store, are specifically accounted for, and without which the store shall not be stored or transported. For a fuller definition and explanation of STCC containers Def Stan 81-41 (Part 2).

27.1.1 In order to ensure asset-tracking visibility it is essential all containers within this category be codified.

27.1.2 To prevent the unnecessary disposal of empty STCC containers it is necessary that they are clearly and easily identifiable. Therefore, in addition to other mandatory and contractual markings information markings as noted in 27.2 shall be applied.

27.1.3 The following shall be marked / labelled onto a STCC container.

a) The text "CONTAINER NSN:" followed by the NATO Stock Number of the container shall be displayed on one side and one end of the container, in a position that does not interfere with any markings used to identify its contents.

b) "STCC CONTAINER DO NOT DISPOSE OF, IF NOT REQUIRED FOR RE-USE RETURN TO NEAREST DEPOT" shall be clearly marked on one end and one side of the container.

27.1.4 RAF Containers are to be painted externally with one of the following primers:

a) Def Stan 80-206 Paint, Priming, Zinc Phosphate Two-Pack Epoxy, Non Aircraft Use, Low VOC, for ferrous metal substrates.

b) Def Stan 80-207 Paint, Priming, Zinc Chromate Two-Pack Epoxy, Non Aircraft Use, Low VOC, for non-ferrous substrates.

c) Def Stan 80-216 Paint, Filler, Spraying, Epoxy, Multi-Pack for composite substrates

d) Def Stan 80-138 Varnish, Polyurethane Two-Pack Types: Matt, Gloss, for wooden substrates.

Followed by one of the following top coats:

e) Def Stan 80-208 Paint, Finishing, Polyurethane Multi-Pack, Matt, IRR, Non Aircraft Use, Low VOC, which complies with STANAG 4477 & 4360. Colour NATO green BS 381C Colour No 285.

f) Def Stan 80-209 Paint, Finishing, Polyurethane Multi-Pack, Gloss, Non Aircraft Use, Low VOC, as above. Colour dark green BS 381C Colour No 241.

Both ends and sides should then be marked with the letters STC (or STCC) in bright orange characters at a height of approx. 10% of the surface area of a face up to 100 mm.

NOTE 2: RAF STC container's internal furniture that forms an integral part of the container design shall be listed and the list displayed in the polyethylene envelope affixed to the underside of the container lid.

27.1.5 Naval containers shall additionally be marked around their girth with two yellow bands, 50 mm maximum width with a 75 mm separation.

28 Markings for Reusable Containers

28.1 For a definition of 'reusable container' see Def Stan 81-41 (Part 2).

28.1.1 Containers, other than STCC, designed to be reusable for multiple trips should be marked with the text 'Reusable' on at least two sides. These can be stores items themselves and should be marked with their NSN, if codified, to aid asset tracking. This is specified to encourage the re-use of such containers and to aid the compilation of statistics for environmental requirements, e.g., disposal of packaging waste, when required.

29 Documents

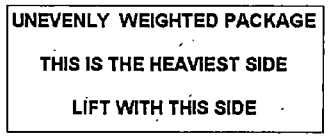
Documents, e.g. packing notes and vouchers, which accompany a container, shall normally be attached to one end of the container. Copies of Shipping Labels (as forms) and other similar consignment journey specific documents may be placed within the container, but never in contact with the packaged item(s).

Annex A - Package Markings

NOTE Model numbers are used for all labels depicted here. They were usually derived from former FPkg label numbers, using a prefix of H for Hazard label, T for Text based label and G for Graphics based label

H0949A

H0949B



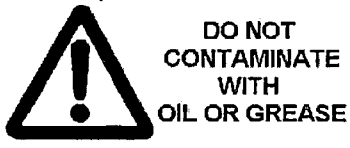
H0950

Manual Handling Operations Regulations Example labels

Figure 7 MoD General Hazard Information Label

G0703
Caution Beryllium Hazard

G0707
Caution - Static sensitive device
(see BS EN 61340-5-1)



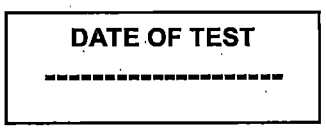
G0752
Do Not Contaminate With Oil or Grease

G0948
Magnetically sensitive
(seek advice)

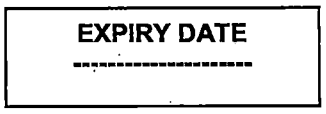
Figure 8 Mod Graphic Based Hazard Information Labels

Annex A - Package Markings (Continued)

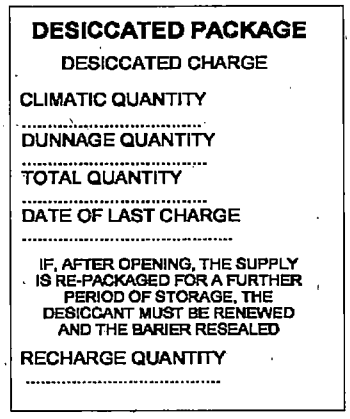
T0002
Calibration Date



T0057
Date of Test

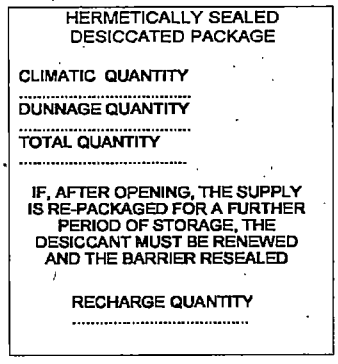


T0058
Expiry/Expiration Date



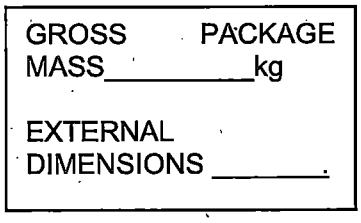
T0059
Desiccated package

T0066/1
Do Not Open

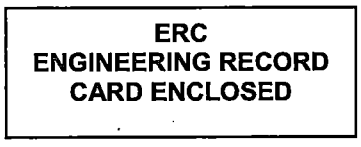


T0195
Hermetically sealed desiccated package

T0268/1
Place in Cushion Package

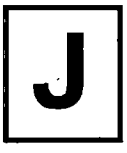


T0737
Package Mass & Dimensions
(See 11.3)



T0783
Engineering record card

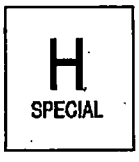
Figure 9 MOD Information Text Based Labelling



T0743
Military Packaging Level J

T0747
Military Packaging Level N

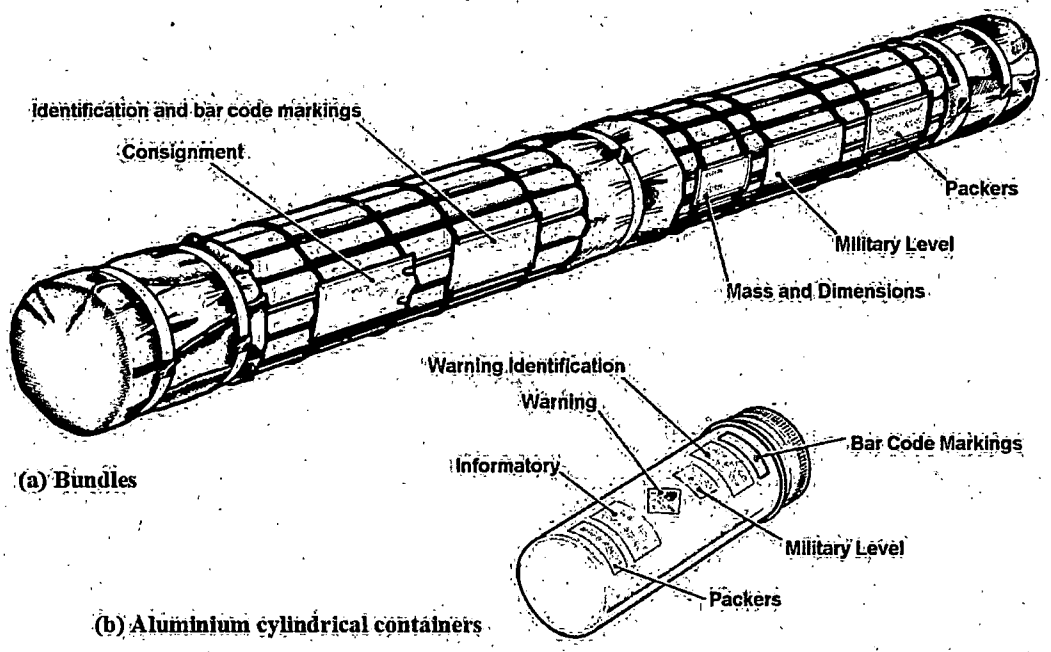
T0748
Military Packaging Level P



T0001
Special Requirements

Figure 10 UK MOD Military Level Labels

Annex A - Package Markings (Continued)



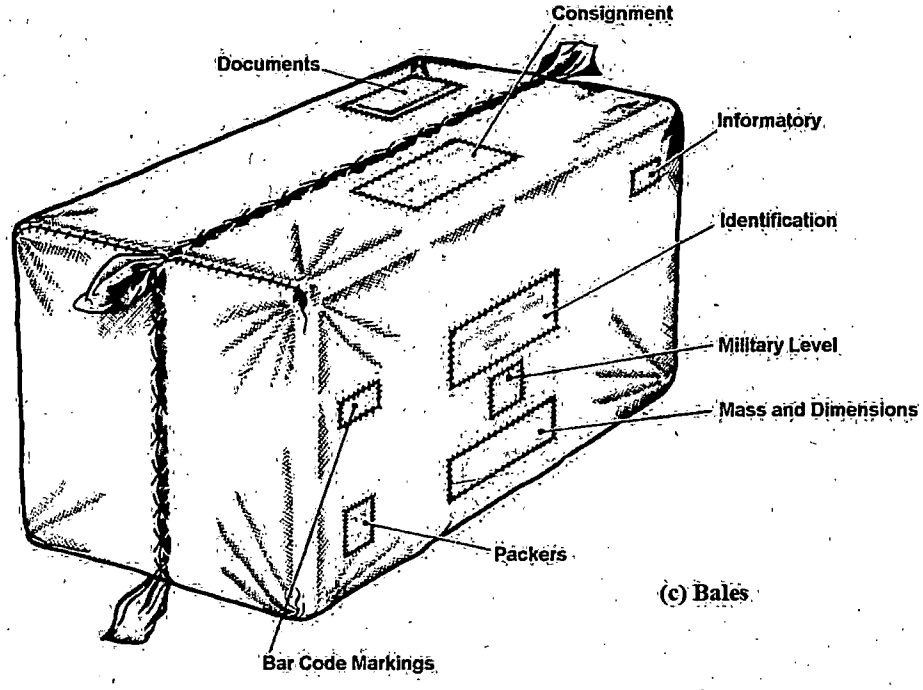


Figure 11 Examples of Positioning of Package Markings

Annex A - Package Markings (Continued)

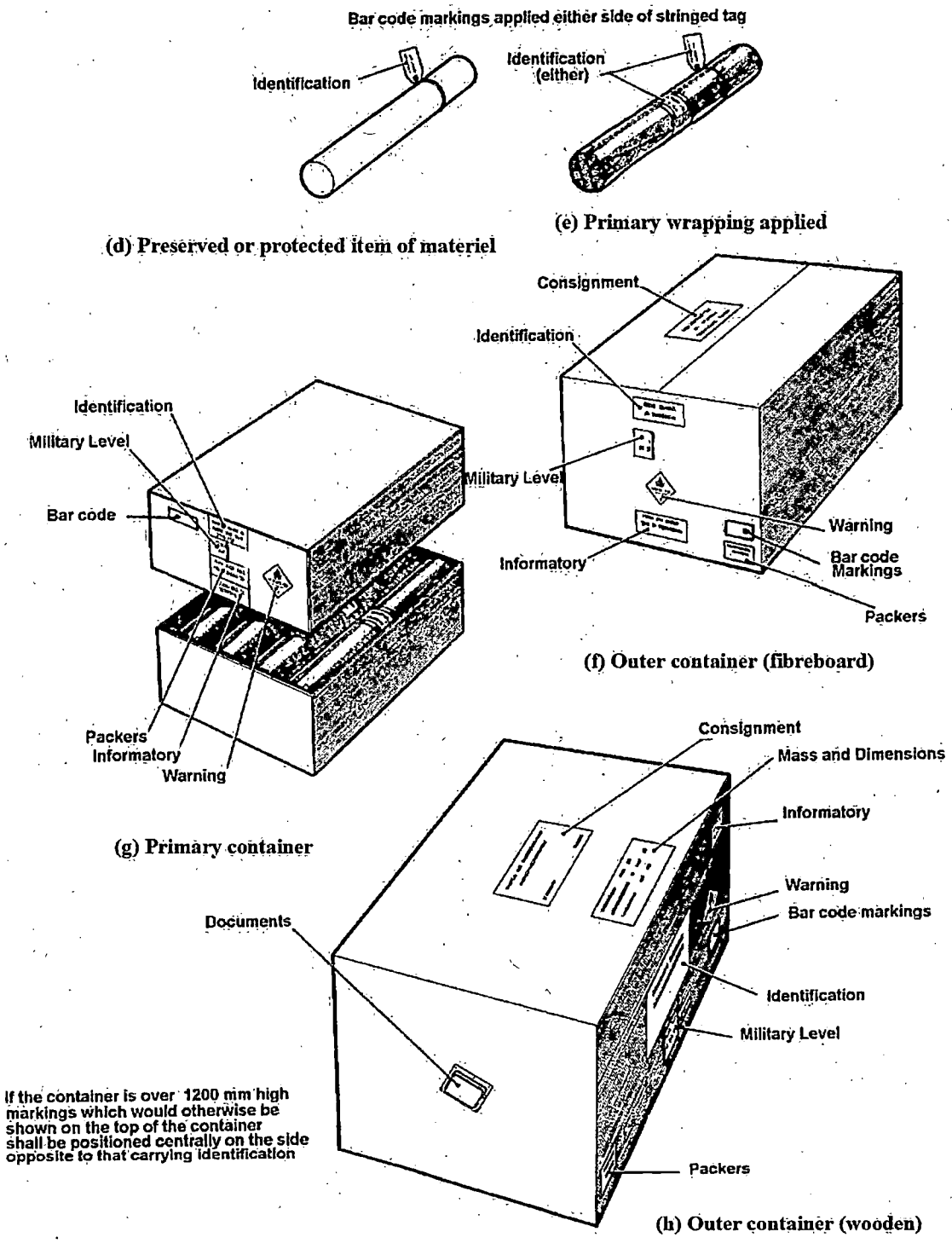


Figure 12 Examples of the Positioning of Package Markings

Note: for further related examples see STANAG 4281

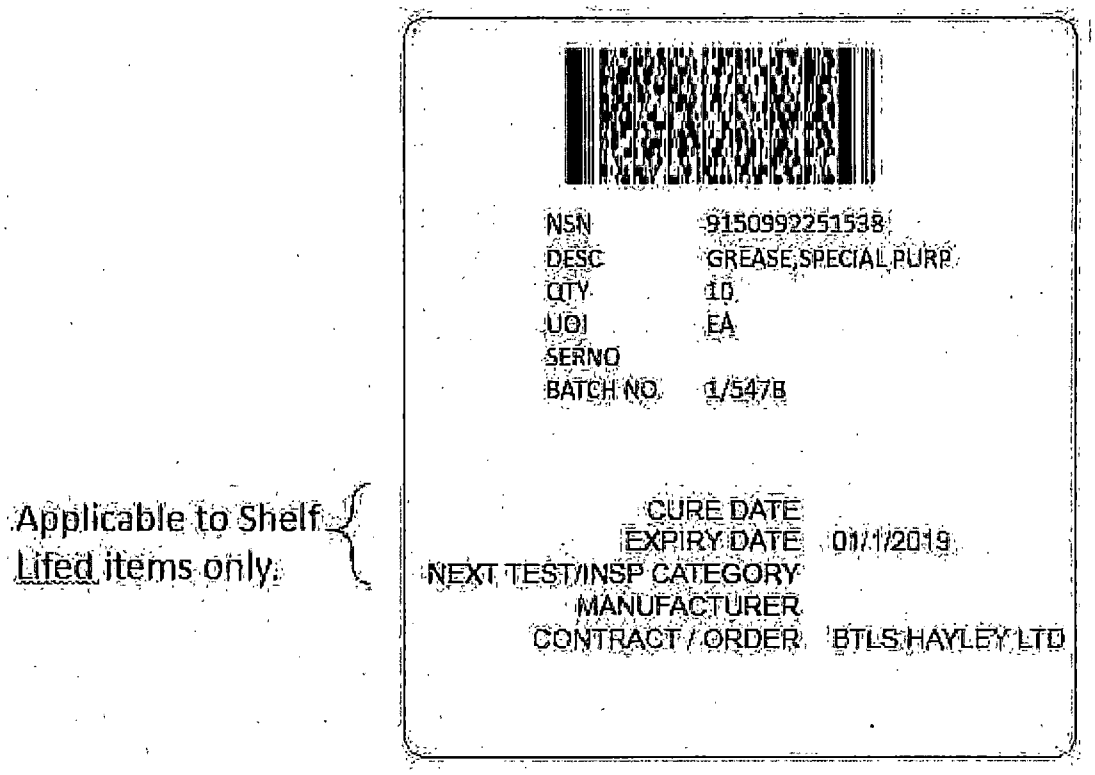


Figure 13 Example of Combined Package Markings label

If the label requires updating with revised dates etc. then it may be amended in manuscript or preferably by applying an over label to be affixed to the lower portion ONLY. An example of an over label is shown in figure 14.

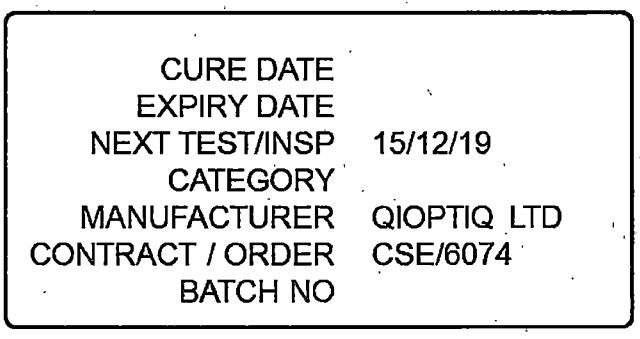


Figure 14 Example of an over label to amend shelf life data.

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Annex B - PDF 417 Syntax and Semantics

1. This annex provides examples of how the mandatory, conditional and optional data elements should appear on the Identification label as HRI and in the PDF 417 symbol as MRI. It also sets out technical requirements for producing a compliant PDF 417 symbol.

2. The data string encoded in the PDF 417 symbol shall conform to the syntax of ISO/IEC 15434, using data qualifiers Semantics) in accordance with format code 06 (DI – Data Identifiers). The following is a basic example of this syntax:

2.1 Raw data

NSN	5855995139256
Quantity	1
UOI	EA
UPIN	K6111 (=NCAGE) and A89N05 (= unique package identifier)
Serial Number	22509
ASSC Code	USML1

2.2 Raw Data with format code 06 Data Identifiers shown in bold

NSN	**N**5855995139256
Quantity	**Q**1
UOI	**3Q**EA
UPIN	**3S**K6111+A89N05
Serial Number	**S**22509
ASSC Code	**49P**USML1

2.3 Data String in the PDF 417 symbol

Syntax (data string identifier, string and data element delimiters) is added to the Raw Data to create a single data string which is encapsulated in an ISO/IEC 15434 envelope as shown below:

[)>$^{R}/_{S}$**06**$^{G}/_{S}$**N**5855995139256$^{G}/_{S}$**Q**1$^{G}/_{S}$**3Q**EA$^{G}/_{S}$**3S**K6111+A89N05$^{G}/_{S}$**S**22509$^{G}/_{S}$**49P**USML1$^{R}/_{S}$$^{E}O_{T}$

It is this data string that is encoded into the PDF 417 symbol. Validation of the encoded data string may be accomplished by use of a verifier or an imager programmed to deliver an un-interpreted data string. The verifier is used to ensure verification of the symbol construction characteristics as well as to grade the quality of the mark. Refer to ISO/IEC 15415 and ISO/IEC 15426-2.

In the example above, the following delimiters are non-printable ASCII characters

$^{R}/_{S}$	Record separator	decimal 30	hexadecimal 1E
$^{G}/_{S}$	Group separator	decimal 29	hexadecimal 1D
$^{E}O_{T}$	End of Transmission	decimal 4	hexadecimal 04

The bar code symbol at Figure B1 contains the encoded data string.

Figure B1

3. The PDF 417 bar code shall be produced in accordance with the requirements of STANAG 4329, Annex B, Part 3 – PDF 417 (2D) BARCODE.

3.1 PDF 417 Variants. Macro PDF417 shall be used to allow more than one symbol to be produced when the amount of data to be encoded exceeds the maximum for a single symbol. This can occur if the primary package contains a large Quantity of Serial Number-controlled items that may also have associated UIIs. Use of Macro PDF417 shall be as described in Annex A to Part 3 of STANAG 4329, Annex B. Compact PDF 417 shall not be used.

3.2 Error Correction Level (ECL). Level 5 shall be used.

3.3 Symbol width and height. Minimum width shall be 1.25 inches (32 millimetres) and maximum width shall be 4 inches (101.6 millimetres). Minimum height shall be 0.6 inch (15 millimetres) and maximum height shall be 1 inch (25.4 millimetres).

3.4 Print quality. Print quality shall be in accordance with ISO/IEC 15416.

4. Table 5 lists the data elements that appear on the primary packaging Identification label, together with the Data Identifiers (DIs).

Table 5 - Data Elements for Primary Package Marking

Data Element	Data Identifier (DI) ISO/IEC 15418	Whether Required: Mandatory, Optional, Conditional, As appropriate, Omit	
		Human Readable (HRI)	Machine Readable (MRI)
NSN	N	Mandatory	Mandatory
NSN Description		Mandatory	Omit
Quantity, PPQ	Q	Mandatory	Mandatory
UOI (Unit of Issue), D of Q	3Q	Mandatory	Mandatory
UPIN	3S	Mandatory	Mandatory
Serial Number	S	Conditional	Conditional
UII	25S	Omit	Conditional
Lot/Batch Number	1T	Conditional	Conditional
ASSC Code	49P	Omit	Conditional
Cure Date	16D	As appropriate	As appropriate
Expiry Date	14D	As appropriate	As appropriate
Next Inspection Date	20D	As appropriate	As appropriate
Manufacturer Name		Optional	Omit
Contract	8K	Optional	Mandatory
Purchase Order	K	Optional	Mandatory

Data Element	Data Identifier (DI) ISO/IEC 15418	Whether Required: Mandatory, Optional, Conditional, As appropriate, Omit	
		Human Readable (HRI)	Machine Readable (MRI)
Manufacturer Part Number		Optional	Omit

4.1 Notes on data elements

1. UOI, D of Q. DI 3Q is known as "Unit of Measure" in ANSI MH10.8.2 and is as defined as per the list of two character abbreviations specified by ANSI X12.3 Data Element Number 355 Unit of Measurement Code. However, for use by the MOD the two character abbreviations specified in DEFFORM 96 apply instead of the ANSI X12.3 Data Element 355 abbreviations.

2. UPIN. As used by the MOD, DI 3S consists of three sub-elements:

a. Enterprise Identifier, i.e. the supplier's code:

i. CAGE/NCAGE - 5 digit alphanumeric code

ii. DUNS - 9 digit numeric code

iii. GS1 Company Prefix - up to 9 digits numeric code

b. Plus symbol "+" which is used as a delimiter between the supplier code and the unique package identifier

c. Unique package identifier assigned by the supplier, up to 6 digits alphanumeric (excluding alphabetic characters 'I' and 'O'). It is recommended that this identifier is assigned randomly rather than sequentially. The supplier is responsible for ensuring that no duplicate UPIN is ever issued.

The HRI version of the UPIN shall omit the DI and may include a space between the supplier's code and the unique package identifier in place of the plus symbol.

3. Lot/Batch Number. DEFSTAN 05-132 allows for Lot/Batch Number to be included as a prefix to the Serial Number for a UII-marked item. If this has occurred, then the Lot/Batch Number data element shall be omitted on the Identification label.

4. ASSC. The Wassenaar Code must always be included if the NSN contained in the package is classified as an ASSC[1]. Otherwise it is omitted. The format of Wassenaar Code is up to 6 characters. The Wassenaar Arrangement Indicator is:

a. Either WWXYYY where:

WW 2 character ISO 3166 country code for the nation applying the Export Authorisations and Controls.

X The Category Code 1 to 9 applying to this item in the Wassenaar Arrangement. Additional categorisation levels are not included in the 49P ASSC Code.

YYY Either SL (Sensitive List) or VSL (Very Sensitive List) or not used.

Examples of Category Code usage: US1, US6SL, US5VSL

b. Or WWZZZZ if the item is contained within the Wassenaar Agreement Munitions List where:

WW 2 character ISO 1366 country code for the nation applying the Export Authorisations and Controls.

[1] ASSC classification applies to all items in the package. Where a package contains more than one item, every item must have the same classification. If ASSC classification varies within NSN, e.g. by serial number, items must be packaged so that a single ASSC classification applies to all the items in a single package.

ZZZZ Where the indication of the item being contained within the Wassenaar Agreement Munitions List it is indicated by the application of ML which is then followed by the relevant section (1 to 22) within the Munitions List.

Examples of Munitions List usage: GBML1, GBML18, USML22

5. Cure Date. MRI format is YYYYMMDD. HRI format is DD/MM/YY (D/M/YY variants are allowed)

6. Expiry Date. MRI format is YYYYMMDD. HRI format is DD/MM/YY (D/M/YY variants are allowed)

7. Next Inspection Date. MRI format is YYYYMMDD. HRI format is DD/MM/YY (D/M/YY variants are allowed)

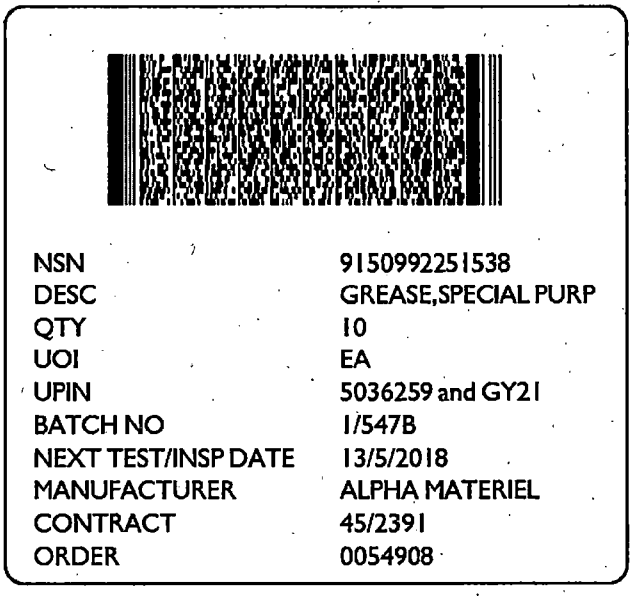
5. Label examples, including PDF417 symbol, are shown for different combinations of data elements.

5.1 Mandatory data elements only

Figure B2

5.2 Mandatory and optional data elements only

Figure B3



5.3 Mandatory and conditional data elements for a single serial number with a UII (with ASSC that is MRI only)

Figure B4

N.B. Includes UII (MRI only) DK611110304212697

5.4 Mandatory and conditional data elements for three serial numbers, all of which have UIIs

Figure B5

N.B. Includes UII (MRI only) D0143N30794UGR018 and D0143N30794UGR018 and D0143N30794UGR020

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Section 3

Normative References

1 The publications shown below are referred to in the text of this standard. Publications are grouped and listed in alpha-numeric order.

Note: Def Stan's can be downloaded free of charge from the DStan web site by visiting **<http://dstan.uwh.diif.r.mil.uk/>** for those with RLI access or **<https://www.dstan.mod.uk>** for all other users. All referenced standards were correct at the time of publication of this standard (see A.2, A.3 & A.4 below for further guidance), if you are having difficulty obtaining any referenced standard please contact the DStan Helpdesk in the first instance.

Def Stans

Number	Title
05-034, Iss 2	Marking of Service Materiel
05-132, Iss 1	Marking of Service Materiel Items Using a Unique Item Identifier (UII)
00-810, Pt 1, Iss 1	Marking of Ammunition and Associated Packages - General
00-810, Pt 2, Iss 1	Marking of Ammunition and Associated Packages - Bombs, Aircraft
00-810, Pt 3, Iss 1	Marking of Ammunition and Associated Packages - Bombs, Mortar
00-810, Pt 4, Iss 1	Marking of Ammunition and Associated Packages - Propelling Charges
00-810, Pt 5, Iss 1	Marking of Ammunition and Associated Packages - Demolition Stores
00-810, Pt 6, Iss 1	Marking of Ammunition and Associated Packages - Grenades
00-810, Pt 7, Iss 1	Marking of Ammunition and Associated Packages - Guided Missiles, Components and Parts
00-810, Pt 8, Iss 1	Marking of Ammunition and Associated Packages - Mines (Other than Underwater Weapons)
00-810, Pt 9, Iss 1	Marking of Ammunition and Associated Packages - Chemical Stores
00-810, Pt 10, Iss 1	Marking of Ammunition and Associated Packages - Projectiles
00-810, Pt 11, Iss 1	Marking of Ammunition and Associated Packages - Pyrotechnics
00-810, Pt 12, Iss 1	Marking of Ammunition and Associated Packages - Free Flight Rockets and Rocket Motors
00-810, Pt 13, Iss 1	Marking of Ammunition and Associated Packages - Small Arms Ammunition (Below 20mm)
00-810, Pt 14, Iss 1	Marking of Ammunition and Associated Packages - Underwater Weapons
00-810, Pt 15, Iss 1	Marking of Ammunition and Associated Packages - Experimental Ammunition

00-810, Pt 16, Iss 1	Marking of Ammunition and Associated Packages - International Projects
00-810, Pt 17, Iss 1	Marking of Ammunition and Associated Packages - Bursters, Exploders, Pellets and Tracers
00-810, Pt 18, Iss 1	Marking of Ammunition and Associated Packages - Detonators, Ignitors, Igniters Cartridge, Primers and Tubes
00-810, Pt 19, Iss 1	Marking of Ammunition and Associated Packages - Fuzes and Gaines
00-810, Pt 20, Iss 1	Marking of Ammunition and Associated Packages - Packaging
00-810, Pt 21, Iss 1	Marking of Ammunition and Associated Packages - Munitions containing Radioactive Material
80-068, Iss 4	Paint, Marking - Types: Brushing; Brush Stencilling; Spray Stencilling; Silk Screen Stencilling; Ink Jet Spraying
80-069, Iss 4	Paint, Paste, Marking
80-207, Iss 3	Paint, Priming, Zinc Chromate, Non- Aircraft Use, Low VOC - Single or Multi-Pack
80-208, Iss 3	Paint, Finishing, Polyurethane Multi-pack, Matt, IRR, Chemical Agent Resistant, Non Aircraft Use, Low VOC
81-019, Iss 4	Protectors, Packing List, Tinplated and Holders, Card Label, Tinplated
81-017, Iss 3	Envelopes, Packing Documents, Waterproof, Tongued and Slotted
81-041, Pt 2, Iss 9	Packaging of Defence Materiel - Design
80-209, Iss 3	Paint, Finishing, Polyurethane Multi-Pack, Gloss, Chemical Agent Resistant, Non Aircraft Use, Low VOC
80-216, Iss 2	Paint, Filler, Epoxy, Spraying, Multi-Pack
81-130, Iss 4	The Transportation, Handling, Storage and Packaging of Magnetically Sensitive Equipment
81-145, Iss 3	Tape, Pressure-Sensitive Adhesive for General Packaging

STANAGs

Number	Title
2290 Edition 2	NATO UNIQUE IDENTIFICATION OF ITEMS
4281 Edition 3	NATO STANDARD MARKING FOR SHIPMENT AND STORAGE - AAITP-05, EDITION A
4329 Edition 4	NATO STANDARD BAR-CODE SYMBOLOGIES - AAP-44
4360 Edition 3	SPECIFICATION FOR PAINT SYSTEMS, RESISTANT TO CHEMICAL AGENTS AND DECONTAMINANTS, FOR THE PROTECTION OF LAND MILITARY EQUIPMENT - AEP-64 EDITION A & AEP-65 EDITION A

Allied Publications

Number	Title
AAITP-05 Edition A Version 1	NATO STANDARD MARKING FOR SHIPMENT AND STORAGE
AAP-44 Edition A	NATO STANDARD BARCODE HANDBOOK
AEP-65 Edition A Version 1	CHEMICAL AGENT RESISTANCE REQUIREMENTS FOR COATINGS APPLIED TO MILITARY EQUIPMENT
AEP-64 Edition A Version 1	PERFORMANCE REQUIREMENTS FOR PAINT SYSTEMS RESISTANT TO CHEMICAL AGENTS AND DECONTAMINANTS, FOR THE PROTECTION OF LAND MILITARY EQUIPMENT

Other References

Standard Type	Standard Name
CIVIL	BS EN 61340-5-1 Electrostatics - Protection of Electronic Devices from Electrostatic Phenomena – General Requirements
CIVIL	BS EN ISO 780 Packaging Pictorial Marking for Handling of Goods
CIVIL	BS ISO 2230:2002 Rubber products Guidelines for storage
CIVIL	BS ISO 27996 Aerospace fluid systems Elastomer seals - Storage and shelf life
CIVIL	BS EN 10230 - 1 Steel Wire Nails: Part 1: Loose nails for general applications
CIVIL	BS 3J 12 Tape, Pressure-sensitive Adhesive (Identification Tape)
CIVIL	BS 381C Specification for Colours for Identification, Coding and Special Purposes
CIVIL	BS 1202 - 1 Specification for Nails: Part 1: Steel Nails
CIVIL	BS 2087 Preservative Textile Treatments (Obsolescent)
CIVIL	BS 4781 Specification for Pressure sensitive Adhesive Plastics Labels for Permanent Use
CIVIL	BS 5609 Specification for Printed Pressure sensitive, Adhesive coated Labels for Marine Use, Including Requirements for Label Base Material
CIVIL	BS 6125 Specification for Natural Fibre Cords, Lines and Twines (Withdrawn)
Other	DEFFORM 96 Coding Sheet for Procurement Documentation
Other	DEFFORM 129j The Use Of The Electronic Business Delivery Form
Other	DLF Defence Logistics Framework

CIVIL	ISO 3166-1 Codes for the representation of names of countries and their subdivisions – Part 1: Country codes
CIVIL	ISO/IEC 15415 Automatic Identification And Data Capture Techniques – Bar Code Symbol Print Quality Test Specification – Two-Dimensional Symbols
CIVIL	ISO/IEC 15426-2 Information technology — Automatic identification and data capture techniques — Bar code verifier conformance specification — Part 2:Two-dimensional symbols.
CIVIL	ISO/IEC 15438 Information Technology – Automated Identification and Data Capture Techniques – PDF 417 2D bar code symbology specification
CIVIL	ISO/IEC 15434 Information technology -- Automatic identification and data capture techniques -- Syntax for high-capacity ADC media
CIVIL	ISPM-15 International Standards for Phytosanitary Measures; ISPM-15 Regulation of Wood Packaging Material in International Trade

2 Reference in this Standard to any normative references means in any Invitation to Tender or contract the edition and all amendments current at the date of such tender or contract unless a specific edition is indicated. Care should be taken when referring out to specific portions of other standards to ensure that they remain easily identifiable where subsequent amendments and supersession's might be made. For some standards the most recent editions shall always apply due to safety and regulatory requirements.

3 In consideration of clause A.2 above, users shall be fully aware of the issue, amendment status and application of all normative references, particularly when forming part of an Invitation to Tender or contract. Correct identification of standards is as defined in the ITT or contract.

4 DStan can advise regarding where to obtain normative referenced documents. Requests for such information can be made to the DStan Helpdesk. Details of how to contact the helpdesk are shown on the outside rear cover of Defence Standards.

Definitions

For the purpose of this standard, ISO/IEC Guide 2 'Standardization and Related Activities – General Vocabulary' and the definitions shown below apply.

Definition	Description
Point Size	The height of a font's character; one point is approximately 0.35 mm. Point size originated in the printing industry as imperial units, hence the non-integer values in SI units. NOTE; Character size is also often noted in terms of "pitch". This is the number of characters per unit length of text, e.g. characters per centimetre (cpcm); 10 point is approximately 4.7 cpcm.
Dangerous Goods	Any substances, articles or items that are listed in any of the national or international transportation or supply of dangerous goods regulations or could meet any of their classifications criteria.
Barcode	For this or any variable relating to bar codes see STANAG 4329 and AAP-44A 'NATO Standard Bar code Handbook'.
Picket Fence or Ladder	These terms refer to a linear barcode orientation with respect to a label and / or reader. A 'Picket Fence' bar code is horizontally orientated, (where the bars are vertical) as opposed to a 'Ladder' bar code which is vertically orientated (where bars are horizontal).
Country Codes	Anywhere it is necessary to include a short form representation of a nation's name; ISO 3166-1 should be used; e.g. for "The United Kingdom and Northern Ireland" these are (alphabetical 2 and 3 character codes) 'GB', 'GBR' and (numeric code) '826'.
Dots per centimetre (dpcm)	A computer printer's resolution, e.g., a standard resolution for a laser printer is 118 dpcm, "(300 dpi, dots per inch)" often quoted in two dimensions i.e. 118 x 118 dpcm.
Batch Number (Batch No.)	Where used in this document this refers to the manufacturer's batch number, unless stated otherwise.

Abbreviations

Abbreviation	Description

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Defence Standards are published by and obtainable from:

Defence Equipment and Support

UK Defence Standardization

Kentigern House

65 Brown Street

GLASGOW

G2 8EX

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Internet e-mail: enquiries@dstan.mod.uk

File Reference

The DStan file reference relating to work on this standard is D/DStan/81/41/6.

Contract Requirements

When Defence Standards are incorporated into contracts, users are responsible for their correct application and for complying with contractual and statutory requirements. Compliance with a Defence Standard does not in itself confer immunity from legal obligations.

Revision of Defence Standards

Defence Standards are revised as necessary by an up-issue or amendment. It is important that users of Defence Standards ensure that they are in possession of the latest issue or amendment. Information on all Defence Standards can be found on the DStan Websites https://www.dstan.mod.uk and http://dstan.uwh.diif.r.mil.uk/, updated weekly. Any person who, when making use of a Defence Standard, encounters an inaccuracy or ambiguity is encouraged to notify UK Defence Standardization (DStan) without delay in order that the matter may be investigated and appropriate action taken.

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