

<h1>Airbus UK</h1> <p>AMENDMENT NOTICE (AN)</p>		AN Issue 1 to ABP 1-4053 at Issue 3
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APPLICABLE TO : ABP 1-4053 ISSUE 3		
TITLE : SODIUM ALGINATE TEMPORARY RELEASE AGENTS		
Item	Amendment or Addition	
1	Add to section 3.2 'An aqueous solution of Methylene blue dye may be added to the release agent in order to produce a distinctive colour which can be readily identified on structure'.	
2	Add to Appendix 1 Item: blue dye Material: methylene blue Supplier: Approved chemical supplier	
AUTHORISED (SIGNED) DR DIGBY		DATE OCT 2004
		AN ISSUE 1 TO ABP 1-4053 (3)
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	ISSUE 3	
TITLE: SODIUM ALGINATE TEMPORARY RELEASE AGENTS		
NOTES: (A) Reference in this specification to any other document shall be to the latest issue of that document unless specifically stated otherwise. (B) For definitions and procedures relating to the use of ABP specifications refer to AMCD 01 and ABP 0-0001. (C) This specification does not necessarily detail all the precautions necessary to meet the requirements of health and safety. It is the responsibility of the user of this specification to consult and establish appropriate Health and Safety precautions and the method should be operated only by trained personnel.		
KEY WORDS: RELEASE AGENTS		
AUTHORISED (SIGNED) DR. R. DIGBY	DATE SEPT 2002	ABP 1-4053
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1. SCOPE

This specification describes the use of sodium alginate as a temporary release agent, which has the particular advantage that it is readily removed without risk of residual contamination if the area is subsequently to be painted.

The release agent is effective up to 150°C and will not craze Perspex.

1.1 Introduction

1.1.1 Sodium Alginate is particularly suitable as no contamination remains after the release agent is washed off, and surfaces can readily be re-painted if required.

1.1.2. Reference shall be made to the drawing for final assembly instructions, and the application of permanent release agents which may be necessary in the design.

1.2 Invoked Documents

This Airbus specification incorporates by dated or undated reference provisions from other publications. All normative references cited at the appropriate places in the text are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this Airbus specification only when incorporated in it by amendment of revision. For undated references the latest edition of the publication shall be applied.

ABP 1-4054 Release Agents for Specified Purposes

2. SAFETY PRECAUTIONS

2.1 Refer to Health and Safety information on page 1.

3. PREPARATION

3.1 Surfaces to be treated shall be clean and dry before application of the release agent.

3.2 Mixing

3.2.1 Sodium alginate is subject to micro-biological degradation To prevent loss of viscosity the solution shall be used within 24 hours of mixing/opening container.

Alternatively, providing the following requirements are met, sodium alginate maybe stored for up to 1 month.

- 1) The release agent after mixing is stored in airtight containers.
- 2) It is kept at normal room temperature.

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3.2.2 Plastic containers shall be used for mixing.

3.2.3 The release agent shall be prepared by mixing in the following proportions by weight:

Sodium Alginate (Manuacol DH)	4 Grammes
Ethylene Glycol	2 Grammes
Water	94 Grammes

or alternatively

Sodium Alginate (Manuacol DH)	4 Grammes
Ethyl (Industrial) Alcohol	2 Grammes
Water	94 Grammes
Triton X 100 (Surfactant)	0.1% by weight

3.2.4 Mix the sodium alginate powder with ethylene glycol or ethyl alcohol and Triton X 100 as appropriate to form a paste.

3.2.5 Add hot water (not boiling) gradually to the paste and stir thoroughly.

3.2.6 All containers, brushes etc. shall be cleaned immediately after use with warm water.

4. APPLICATION

4.1 Apply the sodium alginate using a brush, to the appropriate surface, ensuring that an even coating is obtained. Allow to dry.

Note: Micro-biological degradation does not occur when the coating is dry.

Therefore it is preferable to speed up the drying time by using a current of warm air.

4.2 After the parts have been processed, residues of the release agent shall be removed using a clean rag moistened with water, or by washing with warm water.

4.3 Before re-assembling parts, fit or apply any permanent release agents which are stipulated on the drawing.

5. INSPECTION

5.1 Airbus UK Quality Assurance Authority shall ensure that the completed work shall be examined for compliance with drawing requirements.

5.2 Periodic checks on the process shall be carried out.

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	Item	Material	Supplier	Remarks
	Release Agent Powder	Sodium Alginate (Manucol DH or Manutex RF)	Kelco/AIL International Ltd. 3 Albert Embankment LONDON Tel: 071-735 0333	Supplied in sealed container. Store in a cool dry place. 18 months shelf life.
	Release Agent Fluid	Ethylene Glycol	Approved Chemical Supplier	
	Solvent		Approved Chemical Supplier	
	Surfactant	Triton X	Sigma-Aldrich Company Ltd. Dorset, England Tel: +44 (0)1202 733114 Fax: +44 (0)1202 715460	

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