

BS EN 4106:2013



BSI Standards Publication

Aerospace series — Non-metallic materials — Structural adhesive systems — Paste adhesive — Technical specification

bsi.

...making excellence a habit.
AVA Documents™
Document Sharing Hub

National foreword

This British Standard is the UK implementation of EN 4106:2013.

The UK participation in its preparation was entrusted to Technical Committee ACE/65, Non-metallic materials for aerospace purposes.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

© The British Standards Institution 2013. Published by BSI Standards Limited 2013

ISBN 978 0 580 80247 8

ICS 49.025.50

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 January 2013.

Amendments issued since publication

Date	Text affected
------	---------------

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 4106

January 2013

ICS 49.025.50

English Version

**Aerospace series - Non-metallic materials - Structural adhesive
systems - Paste adhesive - Technical specification**

Série aérospatiale - Matériaux non-métalliques - Systèmes
d'adhésifs structuraux - Adhésif en pâte - Spécification
technique

Luft- und Raumfahrt - Nichtmetallische Werkstoffe -
Strukturelle Klebstoffsysteme - Klebstoffpasten -
Technische Lieferbedingungen

This European Standard was approved by CEN on 10 November 2012.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: Avenue Marnix 17, B-1000 Brussels

© 2013 CEN All rights of exploitation in any form and by any means reserved
worldwide for CEN national Members.

Ref. No. EN 4106:2013: E

Contents		Page
Foreword.....		3
Introduction		4
1	Scope	5
2	Normative references	5
3	Terms, definitions, symbols and abbreviations	6
4	Requirements	7
5	Qualification	10
6	Release testing.....	11
7	Preparation for delivery	14
8	Declaration of conformity	15

Foreword

This document (EN 4106:2013) has been prepared by the Aerospace and Defence Industries Association of Europe - Standardization (ASD-STAN).

After enquiries and votes carried out in accordance with the rules of this Association, this Standard has received the approval of the National Associations and the Official Services of the member countries of ASD, prior to its presentation to CEN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by July 2013, and conflicting national standards shall be withdrawn at the latest by July 2013.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

According to the CEN/CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

This standard is part of the series of EN non-metallic materials standards for aerospace applications. The general organisation of this series is described in EN 4385. This document is a level 3 document as defined in EN 4385. It has been prepared in accordance with EN 4387.

1 Scope

This European Standard defines the requirements for manufacture, qualification, inspection and testing of products in structural adhesive systems where the adhesive is supplied in the form of a paste, either a one-part or two-part system, for aerospace applications. The adhesive may be used in conjunction with a primer whose requirements are also included in this European Standard. It is applicable whenever referenced on a material standard.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 542, *Adhesives — Determination of density*

EN 924, *Adhesives — Solvent-borne and solvent-free adhesives — Determination of flashpoint*

EN 2243-1, *Aerospace series — Non-metallic materials — Structural adhesives — Test methods — Part 1: Single lap shear*

EN 2243-2, *Aerospace series — Non-metallic materials — Structural adhesives — Test method — Part 2: Peel metal-metal*

EN 2243-6, *Aerospace series — Non-metallic materials — Structural adhesives — Test method — Part 6: Determination of shear stress and shear strain*

EN 2379, *Aerospace series — Fluids for assessment of non-metallic materials* ¹⁾

EN 2757, *Aerospace series — Structural adhesives system — Test method — Determination of the drying and ignition residues of primers*

EN 2781, *Aerospace series — Non-metallic materials — Structural adhesives — Test methods — Determination of the primer thickness*

EN 4385, *Aerospace series — Non-metallic materials — General organisation of standardisation — Links between types of standards* ¹⁾

EN 4387, *Aerospace series — Non-metallic materials — Rules for drafting and presentation of technical specifications* ¹⁾

EN 6040, *Aerospace series — Non-metallic materials — Test method — Analysis of thermoset systems by High Performance Liquid Chromatography (HPLC)* ¹⁾

EN 6041, *Aerospace series — Non-metallic materials — Test method — Analysis of non-metallic materials (uncured) by Differential Scanning Calorimetry (DSC)* ¹⁾

EN 6042, *Aerospace series — Organic compounds — Test method — Analysis by infrared spectroscopy* ¹⁾

EN 6064, *Aerospace series — Non-metallic materials — Analysis of non-metallic materials (cured) for the determination of the extent of cure by Differential Scanning Calorimetry (DSC)* ¹⁾

¹⁾ Published as ASD-STAN Prestandard at the date of publication of this standard (www.asd-stan.org).