Australian Standard®

Plastic roof and wall cladding materials

Part 3: Glass fibre reinforced polyester (GRP)



This Australian Standard® was prepared by Committee PL-022, Plastic Building Sheets. It was approved on behalf of the Council of Standards Australia on 30 May 2006. This Standard was published on 30 June 2006.

The following are represented on Committee PL-022:

- Australian Building Codes Board
- Australian Industry Group
- CSIRO, Manufacturing and Infrastructure Technology
- Composites Institute of Australia
- Plastics and Chemicals Industries Association
- University of Adelaide

This Standard was issued in draft form for comment as DR 03155.

Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee and through public comment period.

Keeping Standards up-to-date

Australian Standards[®] are living documents that reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued.

Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments that may have been published since the Standard was published.

Detailed information about Australian Standards, drafts, amendments and new projects can be found by visiting **www.standards.org.au**

Standards Australia welcomes suggestions for improvements, and encourages readers to notify us immediately of any apparent inaccuracies or ambiguities. Contact us via email at **mail@standards.org.au**, or write to Standards Australia, GPO Box 476, Sydney, NSW 2001.

Australian Standard[®]

Plastic roof and wall cladding materials

Part 3: Glass fibre reinforced polyester (GRP)

First published as part of AS A66—1966. Revised and redesignated AS 2376.2—1981. Jointly revised and redesignated in part as Joint Standard AS/NZS 4256.3:1994. Revised and redesignated as AS 4256.3—2006.

COPYRIGHT

© Standards Australia

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher.

Published by Standards Australia GPO Box 476, Sydney, NSW 2001, Australia ISBN 0 7337 7568 3

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee PL-022, Plastic Building Sheets to supersede AS/NZS 4256.3:1994.

After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this Standard as an Australian Standard rather than an Australian/New Zealand Standard.

This Standard is Part of a series of Standards for plastic roof and wall cladding materials, which comprises the following:

| ۸ | C |
|---|---|
| А | 0 |

| 4256 | Plastic 1 | oof and wall cladding materials |
|--------|-----------|------------------------------------------------------------------|
| 4256.1 | Part 1 | General requirements |
| 4256.2 | Part 2: | Unplasticized polyvinyl chloride (uPVC) building sheets |
| 4256.3 | Part 3: | Glass fibre reinforced polyester (GRP) (this Standard) |
| 4256.4 | Part 4: | Unplasticized polyvinyl chloride (uPVC) wall cladding and boards |
| 4256.5 | Part 5: | Polycarbonate |
| | | |

The AS 4256 series is to be used in conjunction with the series of test methods for plastic building sheets, which comprises the following:

AS/NZS

| 4257 | Plastic roof | and wall cladding materials—Methods of test |
|---------|--------------|----------------------------------------------------------------|
| 4257.0 | Part 0: | General introduction and list of methods |
| 4257.1 | Method 1: | Determination of dimensional properties |
| 4257.2 | Method 2: | Determination of dimensional stability at 60°C |
| 4257.3 | Method 3: | Determination of mass per unit area of sheet |
| 4257.4 | Method 4: | Determination of diffuse light transmission |
| 4257.5 | Method 5: | Determination of glass fibre content |
| 4257.6 | Method 6: | Determination of impact resistance |
| 4257.7 | Method 7: | Determination of colourfastness, light transmission and impact |
| | | resistance following ultraviolet light exposure |
| 4257.8 | Method 8: | Determination of residual styrene |
| 4257.9 | Method 9: | Determination of transverse bending stiffness |
| 4257.10 | Method 10: | Determination of surface deformation (oil canning) |
| ~. | | |

Changes to the previous edition are as follows:

- (a) Incorporation of editorial and correction amendments.
- (b) Updating of referenced standards.

The term 'informative' has been used in this Standard to define the application of the appendix to which it applies. An 'informative' appendix is only for information and guidance.

CONTENTS

| | | Page |
|----|--------------------------|------|
| 1 | SCOPE | 4 |
| 2 | REFERENCED DOCUMENTS | 4 |
| 3 | DEFINITIONS | 5 |
| 4 | CLASSIFICATION | 5 |
| 5 | MATERIALS | 5 |
| 6 | WORKMANSHIP | 6 |
| 7 | DIMENSIONAL REQUIREMENTS | 7 |
| 8 | MASS PER UNIT AREA | 7 |
| 9 | DURABILITY | 7 |
| 10 | TEST REQUIREMENTS | 7 |
| 11 | MARKING | 9 |

Australian Standard Plastic roof and wall cladding materials

Part 3: Glass fibre reinforced polyester (GRP)

1 SCOPE

This Standard specifies requirements for general-purpose translucent and opaque glass fibre reinforced polyester sheets of flat, corrugated and other geometrical configurations intended for roof and wall cladding applications. It applies to glass-reinforced polyester sheets installed in accordance with AS 1562.3.

NOTE: Means for demonstrating determining compliance with this Standard are given in Appendix A.

2 REFERENCED DOCUMENTS

The following documents are referred

| | - |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AS/NZS | Determination of teneils grouperties of glastics materials |
| 1145 | Determination of tensile properties of plastics materials |
| 1199 | Sampling procedures and tables for inspection by attributes |
| 1199.0 | Part 0: Sampling procedures and tables for inspection by attributes— Introduction to the ISO 2859 attribute sampling system |
| 1199.1 | Part 1: Sampling procedures and tables for inspection by attributes— Sampling schemes indexed by acceptance quality limit (AQL) for lot- by-lot inspection |
| 1562 | Design and installation of sheet roof and wall cladding |
| 1562.3 | Part 3: Plastic |
| 1745 | Outdoor weathering of plastics in the Australian environment |
| 1745.1 | Part 1: Commercial products |
| 1745.2 | Part.2: Guide for design purposes |
| 4256 | Plastic roof and wall cladding materials |
| 4256.1 | Part 1: General requirements |
| AS/NZS | L L L L L L L L L L L L L L L L L L L |
| 4257 | Plastic roof and wall cladding materials—Methods of test |
| 4257.1 | Method 1 Determination of dimensional properties |
| 4257.3 | Method 3: Determination of mass per unit area of sheet |
| 4257.4 | Method 4: Determination of diffuse light transmission |
| 4257.5 | Method 5: Determination of glass fibre content |
| 4257.6 | Method 6: Determination of impact resistance |
| 4257.7 | Method 7: Determination of colourfastness, light transmission and impact |
| 1207.17 | resistance following ultraviolet light exposure |
| 4257.8 | Method 8: Determination of residual styrene |
| ISO 9001 | Quality management systems—Requirements |
| ISO 9004 | Quality management systems—Guidelines for performance improvements |
| | |



The remainder of this document is available for purchase online at <u>www.saiglobal.com/shop</u>

SAI Global also carries a wide range of publications from a wide variety of Standards Publishers:















Click on the logos to search the database online.