# **Test Report**



Report No

BG001105

Client

3M United Kingdom 3M House PO Box 1 Market Place Bracknell Berkshire RG12 1JU

Authority & date

Clients Purchase Order L66457 dated 10 May 1994

Items tested

Flat glass for use in buildings

Specifications

BS 6206:1981

Results

See Page 2

Prepared by

Authorized by

Issue date

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Conditions of issue

This Test Report is issued subject to the conditions stated in the current issue of *Test Leaflet 1* 'General conditions relating to acceptance of testing'. The results contained herein apply only to the particular sample/s tested and to the specific tests carried out, as detailed in this Test Report. The issuing of this Test Report does not indicate any measure of Approval, Certification, Supervision, Control or Surveillance by BSI of any product. No extract, abridgement or abstraction from a Test Report may be published or used to advertise a product without the written consent of the Director, BSI Testing, who reserves the absolute right to agree or reject all or any of the details of any items of publicity for which consent may be sought.

# TEST AND EXAMINATION OF FLAT GLASS FOR USE IN BUILDINGS SUBMITTED AS A DIRECT COMMISSION

#### INTRODUCTION

At the request of 3M United Kingdom the flat glass samples detailed below, were tested and assessed against requirements of BS 6206:1981 as indicated on the following pages of this Report. This request was made on a Purchase Order L66457 dated 10 May 1994. It is emphasised that assessments have not been made against the other clauses of the Specification.

This Report only relates to the actual samples which have been tested and assessed.

The result of the tests recorded in this Report refer only to the samples submitted (plastics film bonded to glass sheets) which were produced under factory controlled conditions. It should not be assumed that a similar performance will be achieved when the same plastics film is bonded to glass which is already installed in a building.

#### **TEST ITEMS**

A) 8 off 6.0 mm Film backed glass 1930 x 865 mm (Film SH7 CLARL) B) 16 off 6.0 mm Film backed glass glass 1930 x 865 mm (Film SCLARL 400)

#### SUMMARY OF RESULTS

The test samples were tested to the method described in BS 6206:1981.

The results of which are as follows:

| TEST ITEMS | CLASS               | ASSESSMENT |
|------------|---------------------|------------|
| A)         | Drop Height 1219 mm | Fail       |
| B)         | Drop Height 457 mm  | Pass       |
| B)         | Drop Height 1219 mm | Fail       |

## **TESTING AND EXAMINATION**

## Clause No

5.

**Impact** 

5.3

Impact test

Type Thickness

Film

Asymmetric clear film backed glass 1930 x 865 mm
6.00 mm Nominal
SH7 CLARL measured thickness = 0.19 mm

| Sample<br>No | e Impact<br>No | Side<br>Impacted | Result of<br>Impact              | Assessment   |
|--------------|----------------|------------------|----------------------------------|--------------|
|              |                | Drop he          | eight 1219 mm                    |              |
| 1            | 1 2            | Glass            | Hole larger than specified gauge | Fail         |
| 5            | 4              | Glass<br>Glass   | Pointed Protrusions              | Fail         |
| Ŕ            | 8              | Glass            | Broken safely<br>Delamination*   | Pass<br>Fail |
| 8<br>3       | 3              | Film             | Delamination**                   | Fail         |
| 4            | 4              | Film             | Broken safely                    | Pass         |
| 5            | 5              | Film             | Broken safely                    | Pass         |
| 6            | 6              | Film             | Broken safely                    | Pass         |

Delamination:- Weight of 10000 mm<sup>2</sup> = 150 g maximum Weight of 4400 mm<sup>2</sup> = 66 g maximum

<sup>\*</sup>Weight of Particles (g) = 867 g Weight of Single Particle (g) = 226 g

<sup>\*\*</sup>Weight of Particles (g) = 1313 g Weight of Single Particle (g) = 390 g

# **TESTING AND EXAMINATION**

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5. **Impact** 

5.3 Impact test

Type Thickness

Asymmetric clear film backed glass 1930 x 865 mm
6.00 mm Nominal
SCLARL 400 measured thickness = 0.20 mm

Film

| Sample<br>No                         | Impact<br>No                         | Side<br>Impacted   | Result of Impact  | Assessment   |  |  |  |
|--------------------------------------|--------------------------------------|--|---|--|--|--|--|
| Drop height 457 mm                   |                                      |  |   |  |  |  |  |
| 1<br>2<br>3<br>4<br>5<br>6<br>7<br>8 | 1<br>3<br>4<br>6<br>7<br>8<br>9      | Glass<br>Glass<br>Glass<br>Glass<br>Film<br>Film<br>Film | No breakage Broken safely No breakage Broken safely Broken safely Broken safely Broken safely Broken safely                                     | Pass<br>Pass<br>Pass<br>Pass<br>Pass<br>Pass<br>Pass         |  |  |  |
| Drop height 1219 mm                  |                                      |  |   |  |  |  |  |
| 1<br>3<br>9<br>10<br>11<br>12<br>13  | 2<br>5<br>11<br>12<br>13<br>14<br>15 | Glass<br>Glass<br>Glass<br>Glass<br>Film<br>Film<br>Film | Broken safely Broken safely Delamination Hole larger than specified gauge Broken safely Broken safely Broken safely Broken safely Broken safely | Pass<br>Pass<br>Fail<br>Fail<br>Pass<br>Pass<br>Pass<br>Pass |  |  |  |

Delamination:- Weight of 10000 mm<sup>2</sup> = 150 g maximum Weight of 4400 mm<sup>2</sup> = 66 g maximum

Weight of Particles (g) = 1619 g Weight of Single Particle (g) = 438 g