


**Test Report 9788173.**  
PT Multi Arthamas Glass Industry

## Introduction.

This report has been prepared by David Vinyard & Kevin Huscroft and relates to the activity detailed below:

Job/Registration Details	Client Details
<b>Job number:</b> 9788173 Job type: Testing Samples Submitted Start Date: 06/06/2019 Test type: Direct Sample ID: 10183994 <b>Registration:</b> NA Protocol: NA Quality system: NA <b>Registration:</b> NA Protocol: NA Quality system: NA	PT Multi Arthamas Glass Industry Jl. Kedung Baruk Tengah No. 8 Surabaya Jawa Timur 60298 Indonesia

The report has been approved for issue by Chris Rayment – Team Manager

Approved For Issue	
	Issue Date: 18 June 2019

## Objectives.

Direct retest

## Product Scope.

Toughened glass

## Report Summary.

The samples were received on 4th June 2019 and the testing was started on 17th June 2019.

The samples submitted complied with the requirements of the test work conducted.

# Test Results.

## BS EN 12150-1:2015.

Laboratory Temperature 21.5°C

### CLAUSE 8 Fragmentation Test

The glass specimens were allowed to condition for a minimum of 4 hours at ambient temperature prior to testing.

Each sample was measured for length and width then impacted using a pointed steel tool at a point 13mm in from and at the midpoint of, the longest edge in order to count the particles within a 50 x 50mm area. The results were recorded and assessed against the requirements of clauses 8.5 and 8.7.

#### 5MM clear toughened

	Length (mm)	Width (mm)	Assessment
Specimen 1	1100	360	PASS
Specimen 2	1100	360	PASS
Specimen 3	1100	360	PASS
Specimen 4	1100	360	PASS
Specimen 5	1100	360	PASS

Particle Count	Specified	Actual	
Specimen 1	40 min	108	PASS
Specimen 2	40 min	108	PASS
Specimen 3	40 min	103	PASS
Specimen 4	40 min	108	PASS
Specimen 5	40 min	95	PASS

Particle Length	Specified (mm)	Actual (mm)	
Specimen 1	100 max	20	PASS
Specimen 2	100 max	21	PASS
Specimen 3	100 max	20	PASS
Specimen 4	100 max	24	PASS
Specimen 5	100 max	16	PASS

## Test Samples.

Sample Id	ER Number	Description
1	10183994	Toughened

## Description of Test Samples.

Sample Description
5 off 5mm clear toughened glass

## Test Requirements.

BS EN 12150 direct retest

Clause	Requirements
<b>8 (BS EN 12150: Part 1: 2015)</b>	<b>Fragmentation Test</b>
<b>Results table</b>	<b>Actual test results</b> BS EN 12150 direct retest

## Glossary of Terms.

PASS: Complies. Tested by BSI engineers at BSI laboratories.

PASS1: Complies. Witnessed by BSI engineers in manufacturers laboratory.

PASS2: Complies. Tests carried out by third party lab; results accepted by BSI.

PASS\*: Report resulted in uncertainty and states that Compliance is more probable than non-compliance.

FAIL: Non compliance – Product does not meet the requirements of this clause.

FAIL\*: Report resulted in uncertainty and states that Non-compliance is more probable than compliance.

N/A: Not applicable to design under consideration.

N/T: Not tested due to similarity to previously tested item; reference earlier test report.

## Conditions of Issue.

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\*\*\*End of Report\*\*\*