GNS CERAMICS
EXCLUSIVELY WHOLESALE



Reflections

The Reflections 20x20mm glass pool mosaics are a collection of four unique series; Gemstone, Fusion, Pearl and Crystal. The Gemstone series reflects a traditional glass series with a blend of colours to enliven any pool. The Fusion series incorporates a unique transition from a coloured design edge to transparent crystal glass with an added sparkle effect for extra bling. The Crystal series is a partially transparent blend of both Carrara white marble and royal blue, with designs that will add a wow factor to your pool. The Pearl series are a subtle blend of a shimmery shell design which reflects light and provides a touch of opulence to your pool.



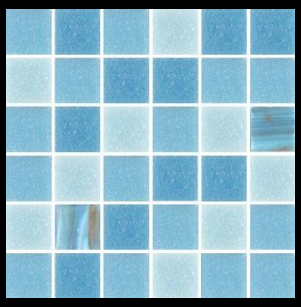
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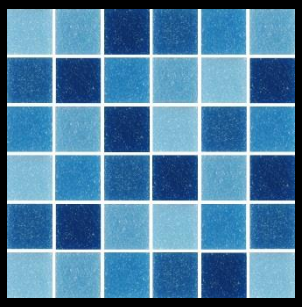
Reflections

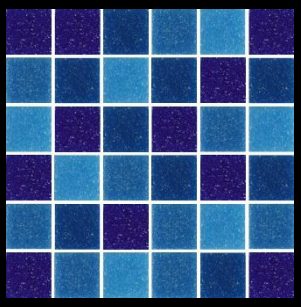
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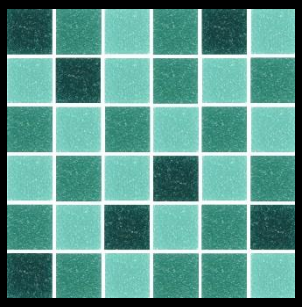
Gemstone


GEM054 Silver Grey

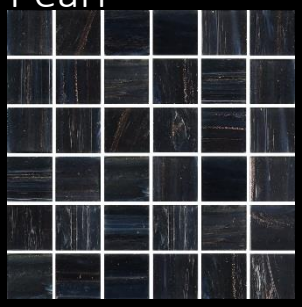

GEM070 Sky Blue

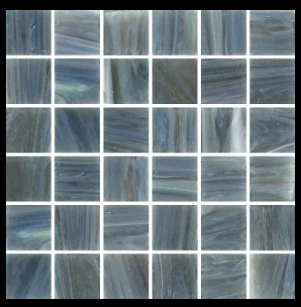

GEM071 Azure


GEM077 Cobalt


GEM078 Emerald

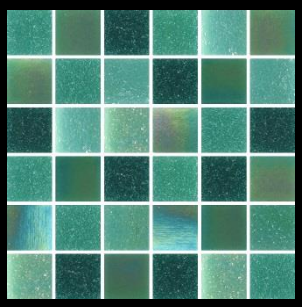
Pearl


PRL009 Black Onyx

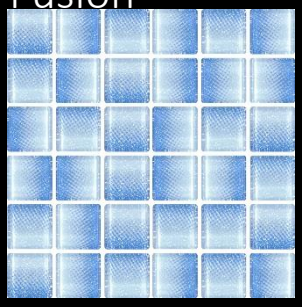

PRL044 Bluestone

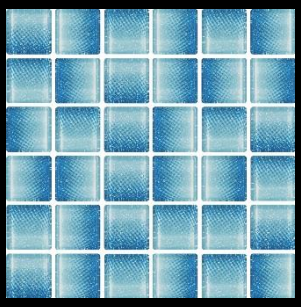

PRL054 Pewter

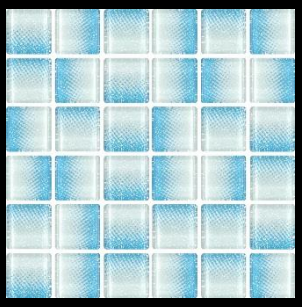

PRL074 Powder Blue

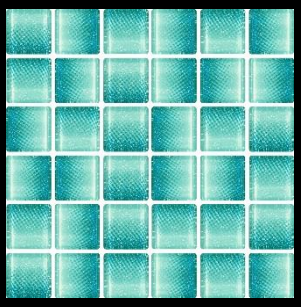

PRL078 Jade Green

Fusion


FUS072 Pacific Blue

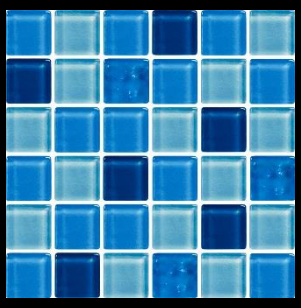

FUS073 Lake Blue

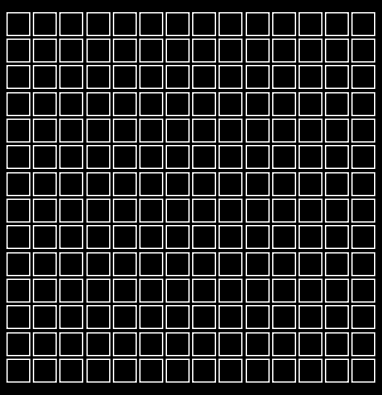

FUS074 Ice Blue


FUS079 Teal

Crystal


CRY003 Carrara White


CRY075 Royal Blue


20x20 mm Glass Pieces
14x14 Pieces per sheet
Hotmelt mounting system

www.ReflectionsMosaics.com.au

Suitable For Swimming Pools	Glass	Cushioned Edge	V4 Variation	Floor Cat. 1	Hotmelt Mounting

INSTALLATION GUIDELINES FOR GLASS TILES

Installation

Tiles are only one component of a much larger building system, and in general, the failure of any tiling system is very often the result of a combination of factors. For example: inappropriate design, type of substrate, surface preparation, temperature during installation, adhesives, incompatibility of products, product failure, environmental factors, skill and knowledge of the installers etc; the latter being supplied or controlled by a variety of manufacturers and tradesman. It is the responsibility of the project manager and or the installer to ensure that all components used in a project are compatible and that the product is installed in accordance with the Australian Consumer law, the Australian Building Code and the Australian Standards.

Glass Tile Installation

1. It is recommended that all work is carried out by licensed contractors experienced in the laying of mosaic tiles.

2. Our mosaic tiles be fixed utilizing

    a. The floating method of installation (removing voids by flattening mortar ridges before setting tile as these may be visible through the glass.

    b. either a combined epoxy grout and adhesive , or

    c. a thick bed combined latex fortified cementitious grout and adhesive.

3. Mosaics need to be stored in a clean dry space. Do not allow the tiles to get wet or damp prior to installation.

4. The grout and adhesives used are to be chemically resistant and suitable for use externally in full immersion with none or low porous materials.

5. Glass mosaic tiles are translucent. We therefore recommend that grout and adhesives are of the same colour. The use of contrasting or different colours may result in the consumer's expectations not being met. In general, a mock up is suggested to confirm the final appearance of tile-mortar combination.

Cutting Glass Tiles

If the tile layout requires partial sheets, simply score the hot melt holding the tiles together with a utility knife as needed. If you need to cut the tiles themselves, use specialized glass mosaic tile cutters as other cutters may shatter the small tiles

1. Use a carbide glass scoring tool, scoring along the line on the flat surface of the mosaic
2. Use a nipper to break off the glass from the scored line
3. Grind the sharp edge with a 4-inch grinder, used for grinding glass/mirrors

Note

After installation the tiles should be allowed to set at least 21 days before filling the pool to allow the mosaic glass tile installation to cure fully.

Cleaning and Maintenance

Do not use abrasive cleaners and chemicals, which could permanently scratch and damage the surface of the tile. For daily cleaning, it is recommended to use a wet sponge and clean water, mild detergent, glass cleaner or a neutral PH solution. Acid or alkalis chemicals should not be used. No claims will be accepted under any circumstances for resultant glaze damage where acid washing has occurred. Also, abrasive materials are not recommended as they may scratch the tile.

Infrastructure Technologies

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Telephone: 61 3 9545 2777 Facsimile: 61 3 9544 1128 Web: http://www.csiro.au
ABN 41 687 119 230

24 December 2019 Our Ref: EN 13/42

TEST REPORT No. 8302

Customer:	GNS Ceramics Pty. Ltd. David Fenton
Address:	3 Cox Place Glendenning NSW 2761
Manufacturer:	Reflections
Product Description:	Reflections Glass Mosaics
Sampling details:	
Where:	At customer premises
Date:	08 November 2019
By Whom:	Customer (delivered by courier)
How (methods):	N/A

The results reported relate only to the sample(s) tested and the information received.

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This test report consists of 4 pages.

AS 3958.1-2007 Part 1: Guide to the installation of ceramic tiles
Section 2.2.2 Clause 5.6.4.2 Tiling adhesive coverage

Infrastructure Technologies

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ABN 41 687 119 230

REPORT NO: **8302**
ISSUE DATE: 24 December 2019
MANUFACTURER: Reflections
PRODUCT DESCRIPTION: Reflections Glass Mosaics

DETERMINATION THE EXPOSED GLUE AND MESH-FREE AREAS

AS 3958.1-2007 Part 1: Guide to the installation of ceramic tiles Test Date: 24 December 2019
Section 2.2.2 Clause 5.6.4.2 Tiling adhesive coverage

Laboratory: CSIRO, Clayton
Test Conditions: 22°C and 60% RH
Individual mean mosaic size: 19.97 x 19.87 mm
Mosaic sheet size: 298 x 298 x 4.0 mm

RESULTS:

THE EXPOSED DOT GLUE-FREE AREAS

Sample #	Small mosaic size (mm)		Surface area of dot glues on mosaic back (mm^2)	Surface area of mosaic (mm^2)	Free space %
1	20.00	19.96	23.73	399.2	94
2	19.89	19.86	22.59	395.0	94
3	20.06	19.96	35.52	400.4	91
4	19.95	19.78	24.13	394.6	94
5	19.92	19.87	32.83	395.8	92
6	20.00	19.98	37.93	399.6	91
7	20.06	19.80	29.38	397.2	93
8	19.95	19.79	22.97	394.8	94
9	20.02	19.90	27.01	398.4	93
10	19.86	19.83	28.72	393.8	93
Mean	**19.97**	**19.87**	**28**	**397**	**93**

Requirements:

Residential floors 80%
Commercial and industrial walls 80%
Commercial and industrial floors 90%
Wet areas 90%
Swimming pools 90%
External walls 90%
Exterior floors, decks and roofs 90%

Average exposed dot glue-free areas: **93%**

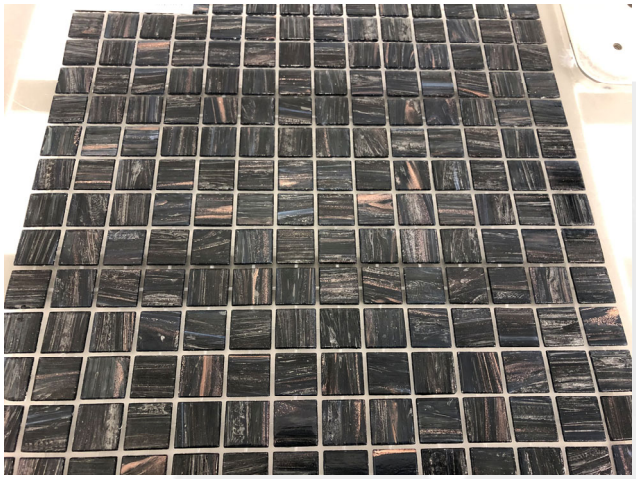
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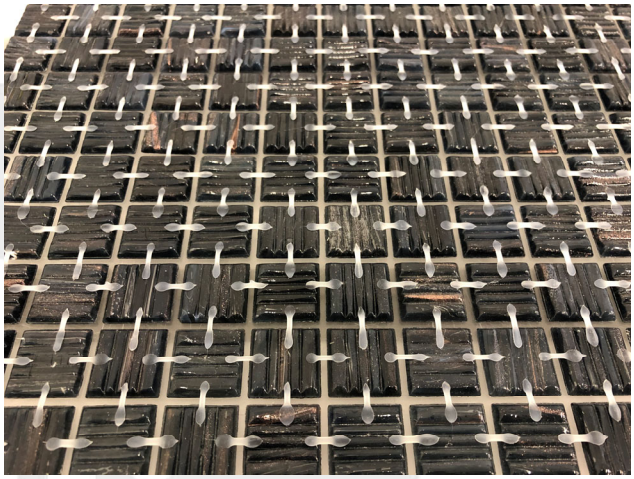
REPORT NO: **8302**
ISSUE DATE: 24 December 2019
MANUFACTURER: Reflections
PRODUCT DESCRIPTION: Reflections Glass Mosaics

PHOTOS:

Exposed dot glue-free areas measurement



Top surface



Bottom surface

Infrastructure Technologies

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ABN 41 687 119 230

REPORT NO:	**8302**
ISSUE DATE:	24 December 2019
MANUFACTURER:	Reflections
PRODUCT DESCRIPTION:	Reflections Glass Mosaics

Date and Place	24 December 2019	Clayton, Victoria

Name, Title and Signature:



Khanh Ho
Technical Officer
Infrastructure Technologies
CSIRO
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www.csiro.au

A. Background

The purpose of this evaluation is to assess suitable Davco tiling system to install the Reflection Range mosaic tiles for swimming pool

Project Initiator:	Rob Luc
Sample submitted for testing	20 x 20 Reflection Range mosaic tiles
Customer:	GNS Ceramics
Test requirement	Tiling system recommendation

B. Laboratory Testing

Products used:

- **Davco Ultraprime** – waterbased primer for porous substrate
- **Davco Elite Colour Grout** – high performance cement-based tile grout
- **Davco Glass Mosaic Additives** – waterbased additive grout enhancer

Sample Preparation

- Cleaned sample and ensuring it is free from dust and contaminants
- Applied 1 coat of Davco Ultraprime over standard concrete block
- Tiled the mosaic tile using mix of 1kg Davco Elite Grout and 250ml of Davco Glass Mosaic Additive; applied using 6mm square notched trowel then finished off with grout float.
- Condition the sample in ambient temperature 23 °C & 50% RH.
- Allowed the assembly to cure for 7 days ambient. Then flooded with water (water ponding) for further 3 days; then test pull-off bond strength.

Test Results

	3 day Dry + 7 day Wet	
	Bond Strength (Mpa)	**Mode of Failure**
Sample 1	1.21	Adhesion failure from tile & adhesive interface; partially broken mosaic tiles
Sample 2	1.12	
Sample 1	1.25	
Average	**1.19 Mpa**	

Note: Greater than 1Mpa test results for early immersion is an indication of a good adhesive system; Davco Technical is aware of 7 day dry + 21 days water immersion requirement of AS ISO 13007 standard.

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ABN 28 093 876 558

C. Photos



Photo 1. Top face of Reflection Range mosaic

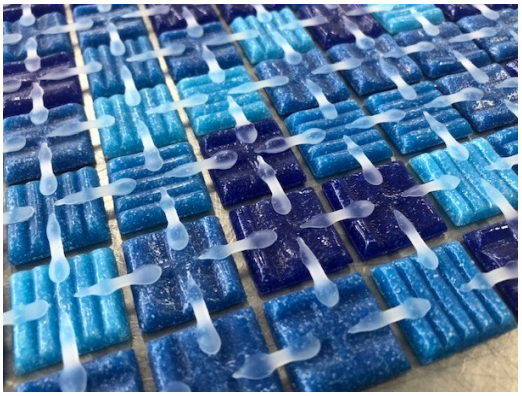


Photo 2. Back of Reflection Range mosaic



Photo 3. Water immersion of the tile assembly

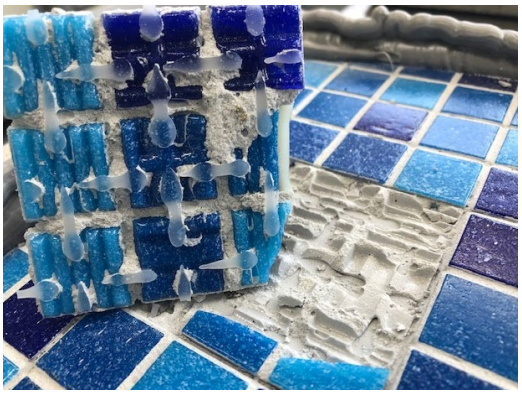


Photo 4. Sample 1 after pull-off



Photo 5. Sample 2 after pull-off



Photo 6. Sample 3 after pull-off

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D. Summary

The Reflection Range mosaic is an easy to bond tiles. Based on the test conducted the following system are recommended for swimming pool installations:

- **Primer**: Davco Ultraprime for porous substrate
- **Tile Adhesive & Grout**: Davco Elite Grout + Glass Mosaic Additive

Disclaimer: The information in this report is based solely on the samples submitted for testing and the information made available to Davco at the time of writing.

On behalf of Parex Group Pty Ltd

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