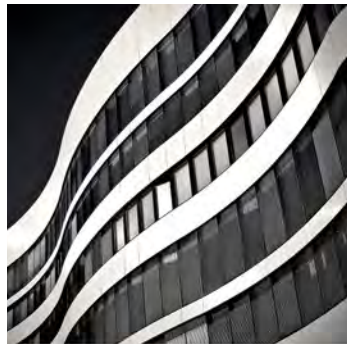# SOLIDAL®

Solid Aluminium FABRICATION

SOLIDAL®
FABRICATION

Watermark® offers an extensive range of **SOLIDAL®** pre-fabricated options allowing easier and more accurate on-site installation, as well as innovative surface treatments, dimpling and perforations.
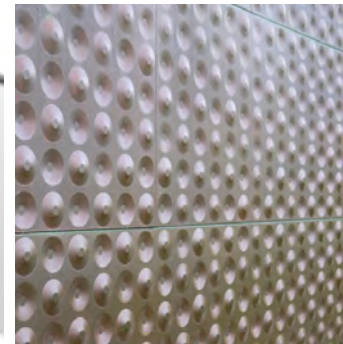
SOLIDAL® FOLDING / CURVING

SOLIDAL® CASSETTE

SOLIDAL® PRE-EDGE SLOT
for Smartfix® System

SOLIDAL® DIMPLE

SOLIDAL® PERFORATED

SOLIDAL®
FIXING OPTIONS

SOLIDAL® Solid Aluminium is suitable for all standard Installation Methods as well as innovative German awarded Smartfix® System.
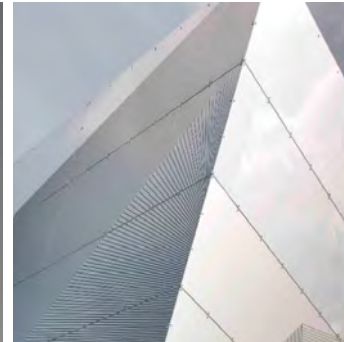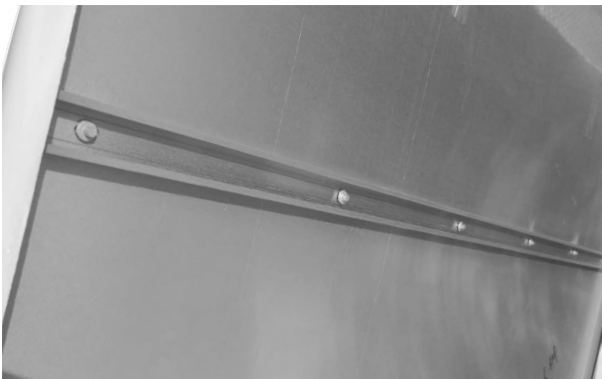

SOLIDAL® Cassette

SOLIDAL® Smartfix® System

SOLIDAL® Curtain Wall
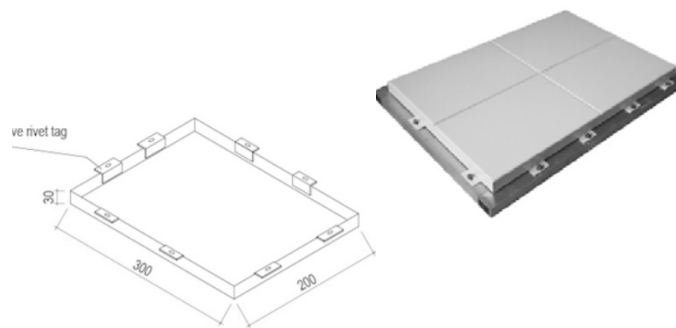

SOLIDAL® VIZFix® System

SOLIDAL®

SOLIDAL® CASSETTE

A large variety of designs can be achieved with **SOLIDAL®** pre-fabricated Cassette modules. A cost effective solution that is pre-fabricated in a factory environment according to clients requirements. Delivered directly to site ready for installation or to clients factory for inspection prior to the install process. Calculations are completed on a project by project basis, so the **SOLIDAL®** Cassette modules are not over or under engineered for the required application.
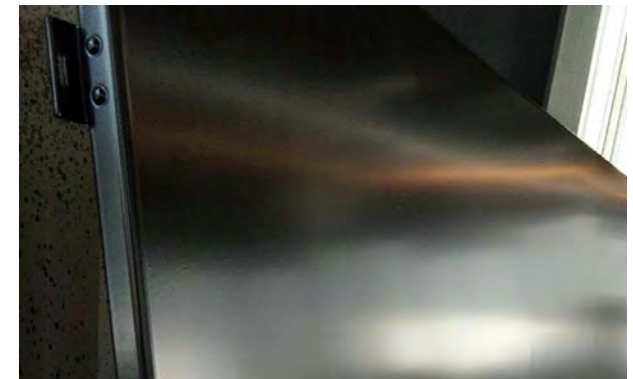

Large **SOLIDAL®** Cassette Modules
combination of supporting stiffeners and internal angles are fixed to back of SOLIDAL® sheet

SOLIDAL® Cassette
Panel Brackets are fixed to back of SOLIDAL® sheet

SOLIDAL® Cassette Module
strength of module is ensured and flatness maintained

SOLIDAL® SMARTFIX® SYSTEM

SOLIDAL® Panels with pre-edge slot are designed for Smartfix® installation System.
The German awarded Smartfix® System is ideal for recladding, due to it's narrow cladding zone and ease of installation.
Smartfix® is supplied in Natural Anodised as standard. A wide range of colours and shades can be obtained on the surface of aluminium profiles through the process of electrocolouring. Other available Finish Options are Powder Coating and Untreated Profiles (Mill Finish).

Smartfix® Extrusion

SOLIDAL® pre-edge slot
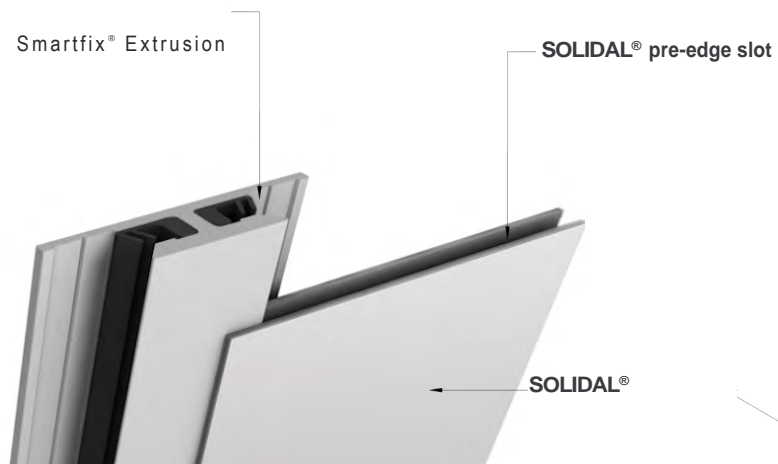
SOLIDAL®

SOLIDAL® pre-edge slot
to allow for installation with Smartfix® extrusions

Smartfix® **SOLIDAL®**
Both **SOLIDAL®** and Smartfix® extruded fixing system are performance
guaranteed with a full global warranty
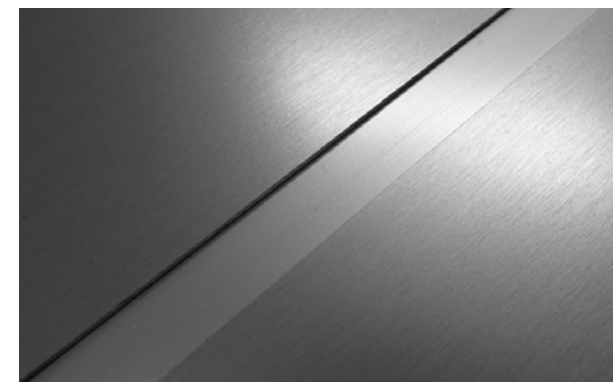
SOLIDAL®
typical Smartfix® joint detail

SOLIDAL® CURTAIN WALL

SOLIDAL® Curtain Wall combines high quality, fast installation and reduced field labor costs with superior performance and design flexibility. Solid Aluminium Cladding is suitable for application on both existing and new constructions. In comparison to other Installation methods, installation process can be up to 60% faster using Curtain Wall System.
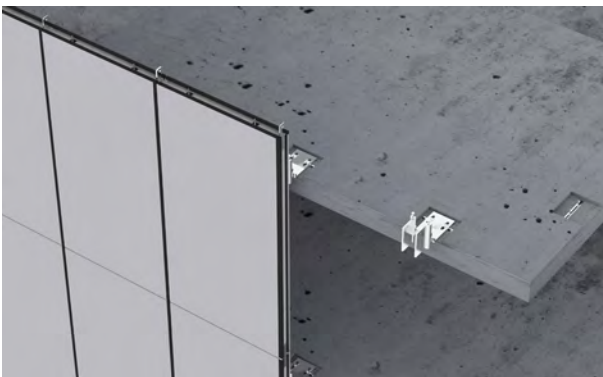
SOLIDAL® Curtain Wall Unit Installation

Modules are generally constructed one story tall and one module wide but may incorporate multiple modules.

SOLIDAL® Curtain Wall

V by Crown Group under construction

SOLIDAL® Curtain Wall

V by Crown Group completed

SOLIDAL® VIZFix® SYSTEM

VIZFix® allows **SOLIDAL®** panels to be installed in a few easy steps using rivets.
The use of proper Thermal Insulation Panels and Weather Membrane is required.
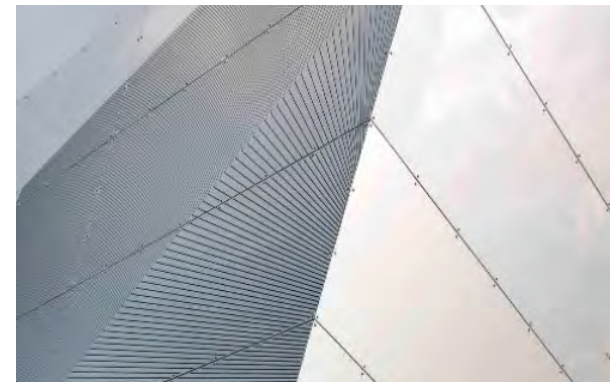
Contact SOLIDAL® or your rivet manufacturer for information on colour matching and for general guidelines and recommendations.
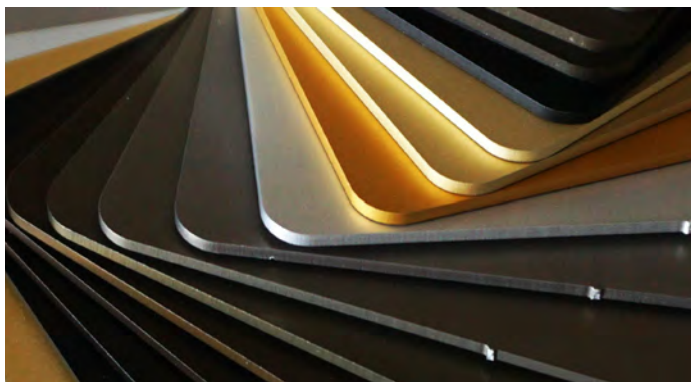
SOLIDAL® VIZFix®
Colour matching available

**SOLIDAL®** VIZFix®
Panels are installed using Rivets

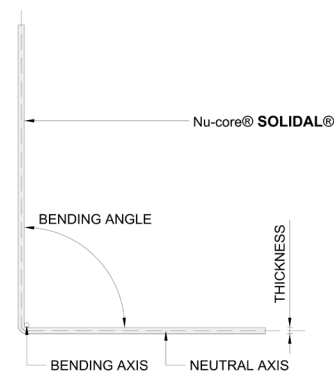**SOLIDAL®** VIZFix®
typical open joint detail

SOLIDAL® FOLDING / CURVING

SOLIDAL® panel can be pre-folded into limitless curved forms.

In-factory pre-folding, allows **SOLIDAL®** panels to be curved precisely, under specified angles,
leaving panel surface smooth and SOLIDAL® Finish undamaged.
Each curved segment is numbered and On-site Installation made easy with SOLIDAL® Panel Coding System.

THICKNESS

BENDING ANGLE — Nu-core® **SOLIDAL®**

NEUTRAL AXIS
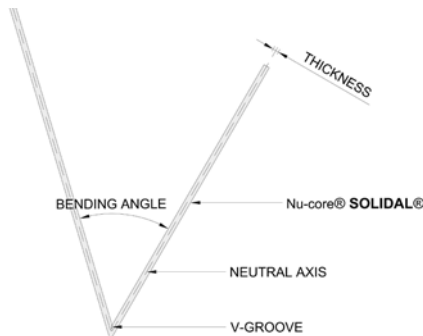
V-GROOVE

FOLDING - sharp corners
small bending radius requires V-groove

Nu-core® **SOLIDAL®**

BENDING ANGLE

THICKNESS

BENDING AXIS — NEUTRAL AXIS

FOLDING - without V-groove
for 2 and 3mm **SOLIDAL®** only

SETBACK — BENDING LINE — Nu-core® **SOLIDAL®**

THICKNESS

BENDING LENGTH

BENDING ANGLE

NEUTRAL AXIS

BENDING AXIS
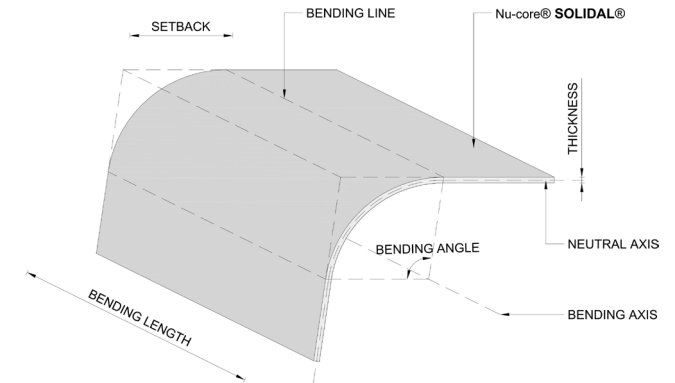
CURVING
large bending radius

SOLIDAL® DIMPLE

SOLIDAL® Panels surface pre-fabrication creates 3D surface effect.
Our machinery is designd to create standard **SOLIDAL®** Dimple Panel options, but also allows you to create your own.
Customised Logo stamping available on request.

Available Panel sizes: 1240mm, 1500mm, 2000mm x 7000mm Length

SOLIDAL® DIMPLE
standard options include 10, 20, 30 and 40% dimple
with Ø10, 20, 30 and 40mm

SOLIDAL® DIMPLE
can be installed using any of SOLIDAL® conventional Installation Methods


SOLIDAL® STAMPED
logo design can be stamped onto the panels according to specifications

SOLIDAL®

SOLIDAL® PERFORATED

SOLIDAL® Panel can be pre-fabricated into one of the standard perforated panel options
or into customised panel options according to project specification.
Customised Patterns available on request.

Available Panel sizes: 1240mm, 1500mm, 2000mm x 7000mm Length
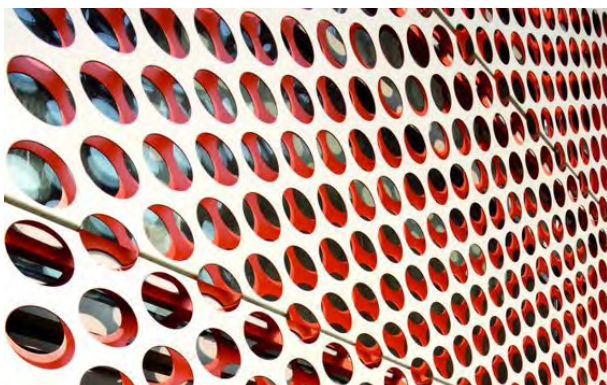
SOLIDAL® PERFORATED
unlimited color options (RAL chart specified)
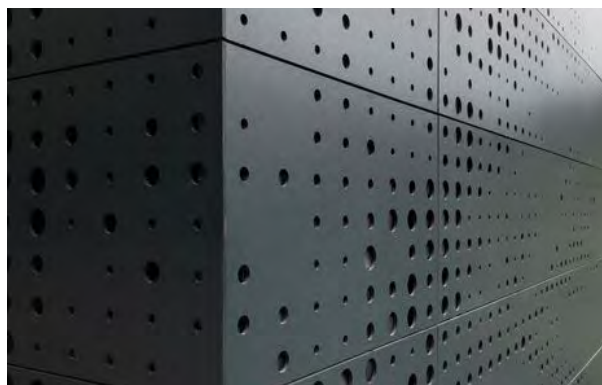
SOLIDAL® PERFORATED Installation
can be installed using any of SOLIDAL® Installation Methods

SOLIDAL® PERFORATED Artwork
customised perforations allow for various designs fabrication

SOLIDAL®

Custom Colours

SOLIDAL® Material is available in three Finishing options:

1 10 - 25μm Anodised (including **Top Bright® Mirror** High Reflective)

2 Powder coated

3 Kynar®500® Coil Coated PVDF

SOLIDAL® offers unlimited range of Custom Colours with various Gloss levels.
Utilise RAL sample color cards and follow the specification process below:

STEP 1: Choose your colour RAL chart code (for example RAL2009)
STEP 2: Specify RAL2009 (PC)[1] / NU2009 (PVDF)[2]

[1] Specify PC for Powder Coat
[2] Specify PVDF for Kynar® 500® Coil Coated PVDF

Colour Matching: provide us with a colour control sample for colour matching using our colour spectrometer.

Contact us for more information:
T: +61 414885530 │ E: info@solidalmetal.com │ www.solidalmetal.com

Henkel   AAF   AkzoNobel   PPG Architectural Coatings   KYNAR BY ARKEMA

SOLIDAL® Technical Specifications

Panel Thickness (mm)	2mm, 2.5mm, 3mm, 4mm up to 6mm
Available width (mm)	1240mm, 1500mm, 2000mm
Length (mm)	7000mm

SOLIDAL® DIMPLE & PERFORATED

Panel Thickness (mm)	3mm, 4mm, 5mm
Dimpled Percentage	10%, 20%, 40%
Diameter Options (mm)	15mm, 30mm, 60mm, 120mm, up to 300mm
Depth of Dimple (mm)	2.5mm (Standard)

SOLIDAL® Physical Properties

	* 3000 Series SOLIDAL®	** 5000 Series SOLIDAL®
Mechanical Properties		
Brinell Hardness	45	67
Elastic Modulus	70GPa	68GPa 9.9 x 106 psi
Elongation at Break	6.0%	8.0%
Fatigue Strength	68 MPa	110 MPa 15 x 103 psi
Poisson's Ratio	0.33	0.33
Shear Modulus	26 GPa	26 GPa 3.7 x 106 psi
Shear Strength	93 MPa	150 MPa 22 x 103 psi
Tensile Strength: Ultimate	160 MPa	250 MPa 37 x 103 psi
Tensile Strength: Yield (Proof)	125 MPa	190 MPa 28 x 103 psi
Thermal Properties		
Melting Onset (Solidus)	640 °C 1120 °F	610 ºC 1120 ºF
Specific Heat Capacity	900 J/kg-K 0.22 BTU/lb-°F	900 J/kg-K 0.22 BTU/lb-ºF
Thermal Conductivity	180 W/m-K 100 BTU/h-ft-°F	140 W/m-K 80 BTU/h-ft-ºF
Thermal Expansion	23µm/m-K	24µm/m-K
Electrical Properties		
Electrical Conductivity: Equal Volume	44% IACS	35% IACS
Electrical Conductivity: Equal Weight (Specific)	140%	120%

 * 3000 Series SOLIDAL® is ideal for Powder coat and Kynar® 500 Coil coated PVDF application

** 5000 Series SOLIDAL® is ideal for Anodising

SOLIDAL®

AUTOMAT III

SOLIDAL® ERP
(Enterprise Resource Planning System) tracking.

All SOLIDAL® orders will have ERP tracking.
ERP tracking assists in the tracking all panel order schedules.

Assisting both customer and SOLIDAL® factory for tracking and monitoring quality production
for complicated and non complicated façade installations.

SOLIDAL®

SOLIDAL® AUSTRALIA

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