

SOLIDAL[®]

**Pre-finished Solid Aluminium Cladding
for Façades**

SOLIDAL[®] T3[®]
SOLIDAL[®] T4[®]

	Panel Thickness (mm)	Available width (mm)	Length (mm)
SOLIDAL® T3®	3mm	1240mm, 1500mm, 2000mm	up to 7000mm
SOLIDAL® T4®	4mm	1240mm, 1500mm, 2000mm	up to 7000mm

Physical Properties

MECHANICAL PROPERTIES	* 3000 Series SOLIDAL®	** 5000 Series SOLIDAL®
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 °C 1120 °F
Specific Heat Capacity	900 J/kg-K 0.22 BTU/lb-°F	900 J/kg-K 0.22 BTU/lb-°F
Thermal Conductivity	180 W/m-K 100 BTU/h-ft-°F	140 W/m-K 80 BTU/h-ft-°F
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 Kynar® 500 Continuous coated PPG PVDF and Powder coating

** 5000 Series SOLIDAL® is ideal for Anodise application (Please consult a SOLIDAL® representative for further information on Anodised grade Aluminium)

Visit www.solidalmetal.com or contact us for more information

Pre-finished Solid Aluminium Cladding for Façades

SOLIDAL® T3® (3mm)
SOLIDAL® T4® (4mm)

SOLIDAL® T3® (3mm) & T4® (4mm) are pre-painted Solid Aluminium semi-finished aluminium product in strip or panel form which has been continuous-coated with high-quality PVDF (Polyvinylidene fluoride) paints.

SOLIDAL® Kynar® PVDF does not require pre-fabrication prior to the coating process. Providing the installation contractor more flexibility for onsite folding and machining without damaging the paint surface.

Alloys, mechanical properties and coating materials have been especially designed and formulated to meet the needs of facade cladding.

Anodise and Powder coat finishes also available.

NATA Certified.



green building council australia

UNLIMITED CHOICE OF COLOURS

SOLIDAL® Continuous Coated PVDF offers unlimited range of Finishes and Colours with various Gloss levels. Kynar® 500 Solid is standard three coat system, consisting of a primer, topcoat and clear coat with a minimum thickness of 28 microns. Reverse side can either be a milled aluminium finish or a polyester base coat finish. Nano PVDF application is available. Maximum gloss level for Kynar® 500 finishes is 30%. Pearlescent pigments with infrared-reflective coatings technology are applied to SOLIDAL® panels with the continuous coating process, improving energy efficiency.

Powder coating, Anodise and Top Bright® Mirror (High Reflective) also available.

Kynar® 500 Continuous Coated PPG PVDF and Powdercoat Finish can match any RAL Colour Code.

Utilise RAL sample color cards and follow the specification process below:

STEP 1: Choose your SOLIDAL® Colour code (for example NU001)

STEP 2: Specify NU001 (PVDF CONTINUOUS COATING)

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

Please contact us for more information and/or to order swatches of SOLIDAL® T3® and SOLIDAL® T4® Kynar® 500 Continuous Coated PPG PVDF, Powdercoat or Anodised Range.

To view or download brochures, visit www.solidalmetal.com

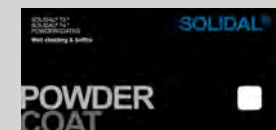
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ORDER SWATCHES

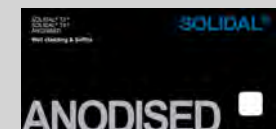
Kynar® 500 Continuous Coated
PPG PVDF

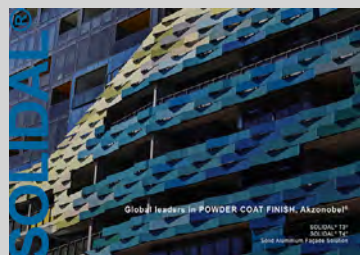
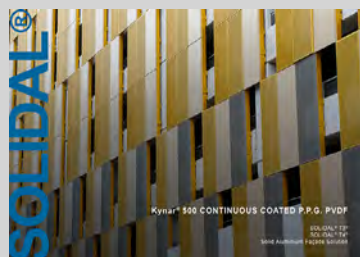


Powdercoat



Anodised





How to Specify

Once you have chosen SOLIDAL® Colour/Finish, it's important to specify the correct product. We make specifying our cladding products and coatings easy, simply:

Nominate your preferred substrate SOLIDAL® Thickness:

- SOLIDAL® T3® (3mm) NATA Certified AS1530.1 Solid Aluminium
- SOLIDAL® T4® (4mm) NATA Certified AS1530.1 Solid Aluminium

Nominate your preferred fixing method:

- Prefabricated Cassette
- Tongue and Groove extrusion system (Smartfix®)
- Captive extrusion system (Smartfix®)
- Face Fixed Riveted or Screwed
- Curtain Wall
- Ventilated System

Nominate your preferred Interpon product

PVDF P.P.G Continuous Coated Kynar® 500®
Powder Coat (Interpon D2015)
Anodise (from 10µm to 25µm Anodise)

Nominate the color, finish and product code

(OPTIONAL) Custom Fabrication SOLIDAL® Special / Custom

- Perforated SOLIDAL®
- Laser Cut SOLIDAL®
- Dimpled SOLIDAL®

Specification EXAMPLE

STEP 1 Substrate: SOLIDAL® T3® (3mm) NATA Certified Solid Aluminium

STEP 2 Preferred Fixing method: Prefabricated Cassette

STEP 3 Preferred Finish: PVDF P.P.G Continuous Coated Kynar® 500® - Nominated colour code NU018

STEP 4 (OPTIONAL) Custom Fabrication: Perforated SOLIDAL®



SOLIDAL® Kynar® 500® Continuous Coated P.P.G. PVDF **Amazing colours brought to life**

SOLIDAL® continuous coating process itself is considered the most environmentally responsible way to apply paint to aluminum substrate. It's the most eco-friendly coating process on Earth. Here's why:

- **98% VOC Capture:** Continuous coating is a highly efficient 'closed loop' process, meaning that the coating curing ovens burn the harmful VOCs, using them as fuel, saving energy and eliminating pollutants. Continuous coating achieves at least a 98% rate for capture and destruction efficiency, eliminating toxic air pollutants that would otherwise be released into the air.
- **Centralized Operations:** By centralizing paint operations, moving them from the manufacturers' inefficient in-house paint shops to continuous coaters' high-tech coating lines, environmental issues are concentrated, controlled, and even eliminated.
- **Exceeds EPA Standards:** The continuous coating industry is subject to the highest EPA standards and meets and exceeds these standards even as they become more stringent year after year.
- **Recyclable & Recycled:** The end products are green. SOLIDAL® Prepainted metal is fully recyclable, and continuous coated products are often made of recycled content.



Modern times have seen the rise of metal as a prime exterior material, largely due to its rugged durability, design versatility, and aesthetic possibilities.

For all its bravado and beauty, metal tends to be superficially weak and is generally available in but a single color. Thus, in order to be both functional and pleasing to the eye, metal must be coated with a unique finish which beautifies with color and resists any chalking, pitting, chipping, or premature aging.

Noted by architects around the world, Kynar 500® PVDF resin-based coatings are precisely the product necessary to provide such protection to SOLIDAL® T3® (3mm) & T4® (4mm) Solid Aluminium.

No other coating system withstands the rigors of nature and time like those based on Kynar 500® resins. This high-performance fluoropolymer resin, with its extraordinary capability to retain color and gloss, keeps SOLIDAL® material looking vibrant and appealing.

SOLIDAL® T3® (3mm) & T4® (4mm) Solid Aluminium with Kynar® PVDF Finish does not require pre-fabrication prior to the coating process. Providing the installation contractor more flexibility for onsite folding and machining without damaging the paint surface.



Global leaders in POWDER COAT FINISH, Akzonobel® Ultra durable performance for all architectural projects

Interpon D2015 Ultriva: Ultra durable performance for all architectural projects

- Available in a wide range of finishes and gloss levels
- Ultra durable performance for all exterior and interior architectural projects
- Meets global architectural specification AAMA2604-13
- Guaranteed up to 20 Years Gold Global Warranty

Interpon D3020 Fluoromax® Hyper durable premium architectural powder coating

- Designed to provide exceptional longevity for the multi-faceted exterior Australian landscape.
- Ideal for use in high UV, high humidity and corrosive coastal marine environments or any environment where premium durability is required, without compromising powder coatings' inherent sustainability characteristics.
- Interpon D3020 Fluoromax coatings use innovative, leading edge fluorocarbon polymer technology to deliver advanced exterior protection and performance.
- Equivalent to liquid PVDF and PVF2, this proprietary technology developed and manufactured by Akzo Nobel exceeds the AAMA2605-11 performance standard.



Watermark® has developed pre-painted solid aluminium products, SOLIDAL® T3® (3mm) and SOLIDAL® T4® (4mm). Specifically formulated metallurgy for building facades in ventilated and non-ventilated construction.

SOLIDAL® T3® & T4® pre-painted Solid Aluminium (3mm & 4mm) are semi-finished aluminium products in strip or panel form with Powder Coat finishes. Alloys, mechanical properties and coating materials have been especially designed and formulated to meet the needs of facade cladding.

- Certified non-combustible according to NATA AS1530.1
- Excellent weather resistant finishes
- Perfect flatness, low stress
- Wide span, high strength
- Low maintenance
- Ideal for new and recladding

SOLIDAL® T3® (3mm) & T4® (4mm) Solid Aluminium with Akzonobel® Powdercoating provides ultra protection from the elements the range exceeds global weathering standard AAMA2604-13, guaranteeing excellent color retention and high resistance to chalking.

Exceptional endurance to environmental stressors including high levels of UV radiation, humidity, heavy pollutants and extreme temperatures are achieved through ultra durable polymer technology engineered to withstand the weathering extremes of Australia and New Zealand.



Anodised Natural beauty, outstanding durability

- Uses world Leading technology true Metal Inorganic colouring
- Is Non Abrasive with outstanding hardness making it ideal for use at high altitude and repels abrasive sands during the most severe windstorms
- Anodising retains its natural beauty as anodizing is a conversion of the real metal itself with incredible hardness and excellent protection of the metal
- Exceeds AAMA611 and AS1231 Performance Standards
- Exclusive AAF 30 Year Evershield Coastal Marine Warranty



Specific process parameters of real metal anodising and sustainability of the environment are key underlying strengths of the new SOLIDAL® T3® (3mm) & T4® (4mm) Solid Aluminium façade solution. The AAF Evershield Coastal Anodise finish offers outstanding durability, over a 100 Year Life Cycle, making the SOLIDAL® façade solution, both NON-Combustible and 100% recyclable.

With the Addition of the Illustro series, the Evershield Range has now broadened into 3 lustres.

Matt: The traditional Matt series combining a timeless and natural matt lustre.

Illustro: The exclusive new Evershield Illustro series is cleverly designed to subtly reflect with the changing light conditions throughout the day creating a fusion with natural building elements and rendered finishes.

Bright: The Bright series is just brilliant. A classic polished metal finish that stands the test of time.



5052H24 **SOLIDAL**[®] Top Bright[®] Mirror (High Reflective)

Watermark[®] offers a range of Reflective and Structural Surfaces:

- Top Bright[®] Mirror (High Reflective)
- Satin
- Bead Blasted
- Brushed

Anodising: Optional 5052 AP1 AAMG or 5005H14 SOLIDAL®

Anodise thicknesses of at least 10µm for indoor and 20/25µm for outdoor applications are recommended, depending on exposure.

Detailed requirements for each application should be discussed with the customer before the anodizing specification is finalised. Anodizing carried out by one firm to ensure batch uniformity. As is usual practice, we recommend limiting samples are agreed to define acceptable process-related variations in gloss and colour.

TONGUE & GROOVE



CAPTIVE EXTRUSION



CASSETTE FIXING



FACE FIXING



CURTAIN WALL



VENTILATED SYSTEM



Application Systems

SOLIDAL® T3®
SOLIDAL® T4®

SOLIDAL® T3® & T4® Solid Aluminium can be fabricated for all standard Application Systems and innovative Captive Extrusion and Tongue & Groove German awarded Smartfix® System.

- Captive Extrusion
- Tongue and Groove (pre-edge slot fabrication)
- Cassette Fixing (routing and folding)
- Face Fixing
- Curtain Wall
- Ventilated System (routing and folding)

For 3D surface effect, there are additional Fabrication Options of SOLIDAL® T3® & T4®

CURVED & FOLDED

Folding and curving in the factory environment, allows SOLIDAL® T3® & T4® panels to be curved precisely, under specified angles according to project shop drawings, leaving panel surface smooth and SOLIDAL® Finish undamaged. Each item is numbered and On-site Installation made easy with SOLIDAL® Panel Coding System.

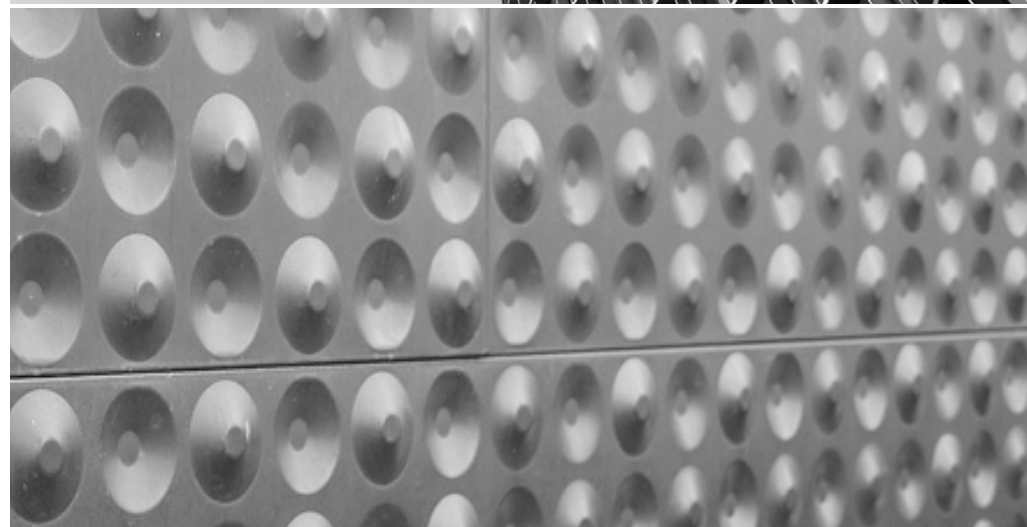
DIMPLE & PRESSED

3D surface effect can be achieved using standard or customised size dimples on SOLIDAL® Panels surface. Standard Dimple options include 10, 20 and 40% dimpled area and four diameter options (15mm, 30mm, 60mm, 120mm). Customised designs and logo stamping available on request.

LASER CUT & PERFORATED

Limitless design solutions and customised patterns can be achieved with SOLIDAL® T3® (3mm) & T4® (4mm) Perforated and Laser cut Solid Aluminium. Perforated Panels can be installed using any of the standard (Cassette Fixing, Face Fixing, Ventilated System) and or Smartfix® Patented Application Systems Captive Extrusion System and Tongue and Groove.

Customised Patterns available on request.





SOLIDAL® Testing: NATA Certified AS1530.1



Safety & Sustainability

SOLIDAL® T3®
SOLIDAL® T4®

SOLIDAL® T3® (3mm) & T4® (4mm) Solid Aluminium is the ideal product for areas which require maximum fire safety.

Classified as non-combustible, non-flammable materials, pre-finished SOLIDAL® provides peace of mind for all Architectural pre-finished metal cladding applications.

Project RECLAD® has been established to help provide, building owners, architects, engineers, safe sustainable solutions once these high risk buildings have been identified for re-cladding.

In conjunction with the leading façade engineering firms, SOLIDAL® provides an umbrella consultancy service that considers all factors, according to safety, budget and aesthetic. Full transparency at all stages provided.

Please consult with a SOLIDAL® Representative for project enquiries

T:1300 252 325 | E: info@solidalmetal.com | www.solidalmetal.com



SOLIDAL® ERP

SOLIDAL® T3®
SOLIDAL® T4®

(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® have contracted the same packaging solutions for provider as I.B.M and Hewllet Packard computers. Ensuring safe delivery of materials. SOLIDAL® Bright P Packaging is the most tried and resilient available, withstanding pressures up to 15 tonnes for a 12mm case.

- Provides excellent product protection
- Collapsible returnable packaging System
- Ideal for returnable / on-forwarding / reusing
- Stacking up to ten high when loaded Vibration
- Drop tested
- Weather resistance
- Impact and pressure tested

Having a collapsible returnable/forwarding packaging system allows for numerous savings through handling, transport and storing. When comparing returnable plywood packaging solutions to alternative materials such as steel or plastic one must consider; environmental impact, capital investment needed, total cost of system including transport/storage/repairs, ergonomics and safety for workers, and much more.

SOLIDAL®

HEAD OFFICE

9A Davis Road
Wetherill Park, Sydney
NSW 2164, Australia

www.solidalmetal.com
E: info@solidalmetal.com
T: +61 414885530

Po Box 1393
Redfern 2016
NSW, Australia

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PPG Architectural Coatings



AkzoNobel



reddot design award

