Pre-Coated Metal

MODN COLOUR

MODERN BUILDING PRODUCT LTD.
Product Introduction

MODNCOLOUR® Pre Coated Metal

MODNCOLOUR® pre coated metals are manufactured specifically for use in New Zealand in accordance with standards AS 1397:2011 and NZ/AS 2728:2013. The base metal substrate is available in AZ 200 Alu-Zinc coated steel, Z275 Zinc coated steel or Aluminium alloy. Performance requirements of the NZBC clause B2 Durability are met by the application of a PPG Duranar®/70% Kynar® PVDF coil coating system.

A durability period of 15 to 20 years can be expected from 70% PVDF coated roof and wall cladding, providing the manufacturer guidelines, warranty and maintenance requirements are adhered to.

MODNCOLOUR® is proudly manufactured for MBPNZ® Ltd by Dongbu Steel Incheon South Korea. Dongbu Steel have been producing high quality steel sheet products for over 45 years. Dongbu steel products are supplied to world leading manufacturers in the construction, automotive and ship building industries. Dongbu pre coated steel products have proven their durability in harsh environments throughout the world including the unique climates of New Zealand and Australia. Dongbu steel is a PPG Duranar® approved applicator.

PPG Duranar® is a high performance 70% Kynar 500® FSF® PVDF coating1 with a 50 year history of proven durability on buildings throughout the world. The application of the coating system is by means of a state of the art continuous coil coating line.

Scope of Use

MODNCOLOUR® pre coated metal is supplied only to MBPNZ® approved fabricators of insulated panel facings, roofing, cladding, flashings and rainwater products. MODNCOLOUR® pre coated metal can be used for many interior and exterior applications providing the manufacturer guidelines, warranty and maintenance requirements are adhered to.

Special Environmental Considerations:
Where pre coated metal products are being considered for use in potentially corrosive environments the choice of substrate should be made in consultation with the product provider.

Certain coatings are more susceptible to corrosion in particular environments than others. Agricultural, geothermal, industrial and marine environments can have unique factors that may cause premature degradation of pre coated metals. E.g. Long term housing of livestock can create an alkaline environment which can be corrosive to aluminium substrates or alu-zinc coated steel substrates. Very severe marine environments can be corrosive to coated steel substrates.

The location and intended use of the building should be considered in order to specify the most durable option available. Product warranties are contingent on the correct product selection for the environment.

Installation of finished products should be in keeping with the product provider or fabricators guides and installation instructions. The relevant industry codes of practice and New Zealand building code clauses should also be adhered to.

1 Kynar®, Kynar 500® and FSF® are registered trademarks of Arkema Inc.
+ **Product Brief**

- Coated and baked with symmetric polyvinylidene fluoride, containing fluoride, which is an inert element
- High weather and chemical resistance from the outstanding strength of the molecular bond of polyvinylidene fluoride
- High-quality pre-painted steel sheet backed by a 15-year minimum durability warranty

+ **Types of Pre-coated Steel**

**PVDF COATED STEEL SHEET**
PVDF is extremely high performance material in durability & formability.

**End Usage**
- Metal Exterior Panel
- Sandwich Panel
- Roofing & cladding in industrial complexes

**PRINTECH (PRINTED STEEL SHEET)**
Printed Steel Sheet (gravure offset type), supplies elaborated and classy pattern of steel.

**End Usage**
- Interior & exterior decoration materials
- Steel plate for general industries
- Home appliance

+ **Quality Assurance**

Arkema Inc. and PPG Industries are celebrating a half-century of partnership with Kynar 500® PVDF resin. The only original and continuous licensee of this well-recognised, often-recommended and universally trusted fluoropolymer product, PPG uses Kynar 500® FSF® PVDF resin as a key ingredient to power its complete line of Duranar® fluoropolymer coil and extrusion coatings.

Introduced in 1965 and available exclusively from Arkema through a strict licensing program, Kynar 500® PVDF technology is known within the architectural community as one of the most weatherable resins for creating coatings with an extraordinary capability to retain colour and gloss. Next-generation Kynar 500® FSF® resin, produced using a patented fluorosurfactant-free process, provides coatings with superb mildew resistance, excellent dirt shedding, and extreme weatherability for aluminum, galvanised steel and aluminised steel applications.

Relying on Kynar 500® PVDF resins for five decades, Duranar® extrusion and coil coatings have provided exceptional colourfastness and gloss retention on curtain walls and other metal building components around the world. Designed for high-end architectural applications, the expansive line of Kynar 500® FSF® PVDF resin-based Duranar® coatings combine exceptional hardness and durability.

Innovative new Duranar® coating technologies, developed in partnership by PPG and Arkema, have made significant contributions to meeting the continually evolving needs of the global building and construction marketplace over the last 50 years. This strong commitment to innovation continues today with the recent introductions of Duranar® GR (graffiti-resistant) and Duranar® VARI-Cool® coatings, as well as next-generation Duranar® ADS (air-dry system) architectural metals coatings based on Kynar ADS® II PVDF resin.

---

<table>
<thead>
<tr>
<th>Bond Energy (Kcal/Mole)</th>
<th>Wave Length Based on Dissociation (μm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-C (Si-P-E)</td>
<td>80.5</td>
</tr>
<tr>
<td>C-F (PVDF)</td>
<td>116.0</td>
</tr>
</tbody>
</table>

* Atomic energy and wavelength (μm)
**Product Introduction**

Zealand building code clauses should also be adhered to. The product provider or fabricators guidelines, warranty and maintenance requirements are adhered to. Installation of finished products should be in keeping with the product provider or fabricators guides and installation instructions.

Product warranties are contingent on the correct product selection for the environment. In order to specify the most durable option available, the location and intended use of the building should be considered in consultation with the product provider. Where pre coated metal products are being considered for use in potentially corrosive environments the choice of substrate must be made in consultation with the product provider.

**Special Environmental Considerations**

Certain coatings are more susceptible to corrosion in particular marine environments. Very severe marine environments can be corrosive to coated steel substrates. Term housing of livestock can create an alkaline environment which can be corrosive to aluminium substrates or alu-zinc coated steel substrates. E.g. Long flashings and rainwater products. The term housing of livestock can create an alkaline environment which can be corrosive to coated steel substrates.

**Quality Assurance**

PPG Duranar® is a high performance 70% Kynar 500® PVDF coated roof and wall cladding, providing the manufacturer with a 50 year history of proven durability on buildings worldwide. Dongbu steel is a PPG Duranar® approved applicator. Dongbu steel products have been producing high quality steel sheet products for over 45 years. Dongbu steel products are supplied to world leading building industries. Dongbu pre coated steel products have been producing high quality steel sheet products for over 45 years. Dongbu steel products are supplied to world leading building industries. Dongbu pre coated steel products have been producing high quality steel sheet products for over 45 years. Dongbu steel products are supplied to world leading building industries. Dongbu pre coated steel products have been producing high quality steel sheet products for over 45 years. Dongbu steel products are supplied to world leading building industries. Dongbu pre coated steel products have been producing high quality steel sheet products for over 45 years. Dongbu steel products are supplied to world leading building industries. Dongbu pre coated steel products have been producing high quality steel sheet products for over 45 years. Dongbu steel products are supplied to world leading building industries.

PVDF is extremely high performance material in durability & formability. PPG uses Kynar 500® FSF® PVDF resin as a key ingredient to power its complete line of Duranar® architectural metals coatings based on Kynar ADS® II PVDF resin. Introduced in 1965 and available exclusively from Arkema through a strict licensing program, Kynar 500® PVDF technology is known within the architectural community as the standard for high performance. Relying on Kynar 500® PVDF resins for five decades, Duranar® has provided exceptional colourfastness and gloss retention on curtain walls and other metal building components around the world. Designed for high-end architectural applications, the innovation continues today with the recent introductions of Duranar® ADS (air-dry system) and Duranar® VARI-Cool® coatings, as well as next-generation Duranar® extrusion coatings.

**SCOPE OF USE**

- **Home appliance**
- **End Usage**
  - Interior & exterior decoration materials / Steel plate for general industries / PRINTECH (PRINTED STEEL SHEET)
- **Applications**
  - Metal Exterior Panel / Sandwich Panel / Roofing & cladding in industrial complexes

**MODNCOLOUR® Chart**

<table>
<thead>
<tr>
<th>Ironsand</th>
<th>Karaka</th>
<th>Grey Friers</th>
<th>Titania</th>
<th>Sandstone Grey</th>
<th>Pitch</th>
</tr>
</thead>
<tbody>
<tr>
<td>F9A012B</td>
<td>F4A013B</td>
<td>F9A052B</td>
<td>F7A012B</td>
<td>F9A072B</td>
<td>F9A312B</td>
</tr>
<tr>
<td>Gull Grey</td>
<td>Pioneer Red</td>
<td>Permanent Green</td>
<td>New Denim Blue</td>
<td>Desert Sand</td>
<td>Mist Green</td>
</tr>
<tr>
<td>F9A672B</td>
<td>F1A232B</td>
<td>F4A392B</td>
<td>F9A622B</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Cross-sectional view**

- **Pre-coated Metal**

- **Printech**

Pre-coated metal substrate available in Alu-Zinc coated steel, Zinc coated steel and Aluminium alloy.
## Residential and Commercial Warranty Guide Chart

**MODNCOLOUR® PRECOATED METAL**
**AZ200 COATED SUBSTRATE PVDF FINISH SYSTEM**
**5052 ALUMINIUM SUBSTRATE PVDF FINISH SYSTEM**

<table>
<thead>
<tr>
<th>ISO 9223 CLASSIFICATION</th>
<th>C1-3</th>
<th>C4</th>
<th>C5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MILD TO MODERATE</strong></td>
<td>20 years</td>
<td>20 years</td>
<td>15 years</td>
</tr>
<tr>
<td><strong>SEVERE</strong></td>
<td>25 years</td>
<td>25 years</td>
<td>15 years</td>
</tr>
<tr>
<td><strong>VERY SEVERE</strong></td>
<td>15 years</td>
<td>15 years</td>
<td>15 years</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>FINISH COATING</strong></th>
<th><strong>PERFORATION</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>ROOFING AZ200</td>
<td>WALL CLADDING AZ200</td>
</tr>
</tbody>
</table>

Warranties may be subject to a physical site evaluation to accurately determine exposure to elements and potential corrosion factors. A site specific warranty will be issued upon completion of works, the final warranty will be issued for a minimum of 15 years provided the materials are installed by suitably qualified tradespeople adhering to generally accepted methods of installation and industry codes and standards.

### Maintenance

**ISO 9224 zone classifications**

<table>
<thead>
<tr>
<th>Roofing</th>
<th>Exterior Cladding</th>
<th>Rainwater Systems</th>
<th>Fascia</th>
</tr>
</thead>
<tbody>
<tr>
<td>**C1-2</td>
<td>MILD**</td>
<td>**C3</td>
<td>MODERATE**</td>
</tr>
<tr>
<td>• Natural washing by rainfall</td>
<td>• Natural washing by rainfall</td>
<td>• Natural washing by rainfall</td>
<td>• Natural washing by rainfall</td>
</tr>
<tr>
<td>• Natural washing 12 monthly</td>
<td>• Natural washing 6 monthly</td>
<td>• Manual washing 3 monthly</td>
<td>• Natural washing 3 monthly</td>
</tr>
</tbody>
</table>

* Under the terms of warranty it may be necessary to provide proof of a maintenance schedule as per the maintenance requirements set out above.

* Failure to adequately maintain MODNCOLOUR® pre coated metal products may void warranty.
COMMERCIAL USES
MODNCOLOUR® coil coatings are formulated to provide excellent performance against weathering in commercial environments. The MODNCOLOUR® two-coat system is an excellent choice for architectural applications such as storefronts, building panels, curtainwalls, and roof panels.

MODNCOLOUR® WARRANTY INFORMATION
MBPNZ® offers a comprehensive warranty on MODNCOLOUR® coil coatings. For complete warranty information and a copy of the MODNCOLOUR® coil coatings warranty, please contact MBPNZ admin@modnbp.com.

APPLIED STANDARDS
AS/NZS 2728:2013, AS1397-2011

STORAGE & HANDLING
Handle coils with care and do not stack more than two high.

MARKING
Product information such as Label, Shipping mark, Color Stripes are attached inside of every product.