

# Coloris™ Product Information

**Aluminum alloy**  
A5754, A5052, A5005  
Other alloys available on request

**Dimensions**  
Standard dimensions  
Thickness: 0.5mm - 2.5mm  
Width: 1,650mm Max  
Length: 6,000mm Max  
Other dimensions available on request

**Mechanical properties**  
Temper: various on request  
Tensile strength: Rm 220-260 MPa  
Yield strength: Rp 0.2, 165-215 MPa  
Elongation: A 50>9%  
Permissible stress: 96MPa

**Linear expansion**  
Coefficient of linear expansion: 0.024mm/m/°K

**Elasticity**  
Modulus of elasticity: ~70,000 Mpa

**Coating quality**  
Kynar 500 - Hylar 2000 in a mix 70/30

**Coating thickness**  
Front face approx. 25µm, metallics 30-40µm  
Reverse face approx. 5µm

**Fire protection**  
Non-combustible

**Anti-corrosion**  
Excellent corrosion resistance

**Gloss**  
Mirror gloss at 60° by KSM 5000 (KSD 6711)

**Colors**  
Colors as per the Novelis color chart as well as special colors on demand  
Special and customized colors available with a minimum quantity of 1,000m<sup>2</sup>

**Installation**  
Use of panels from a single production batch is recommended.  
Installation of panels in the same coating direction is recommended.  
Instructions are printed on the reverse face of the panels.

**Quality control and certificates**  
Novelis offers quality assurance for Coloris™ based on the American Society for Testing and Materials standards. Details of the quality assurance are subject to change depending on region, climate or other environmental factors.

# Not just aluminum, Novelis Aluminum.™

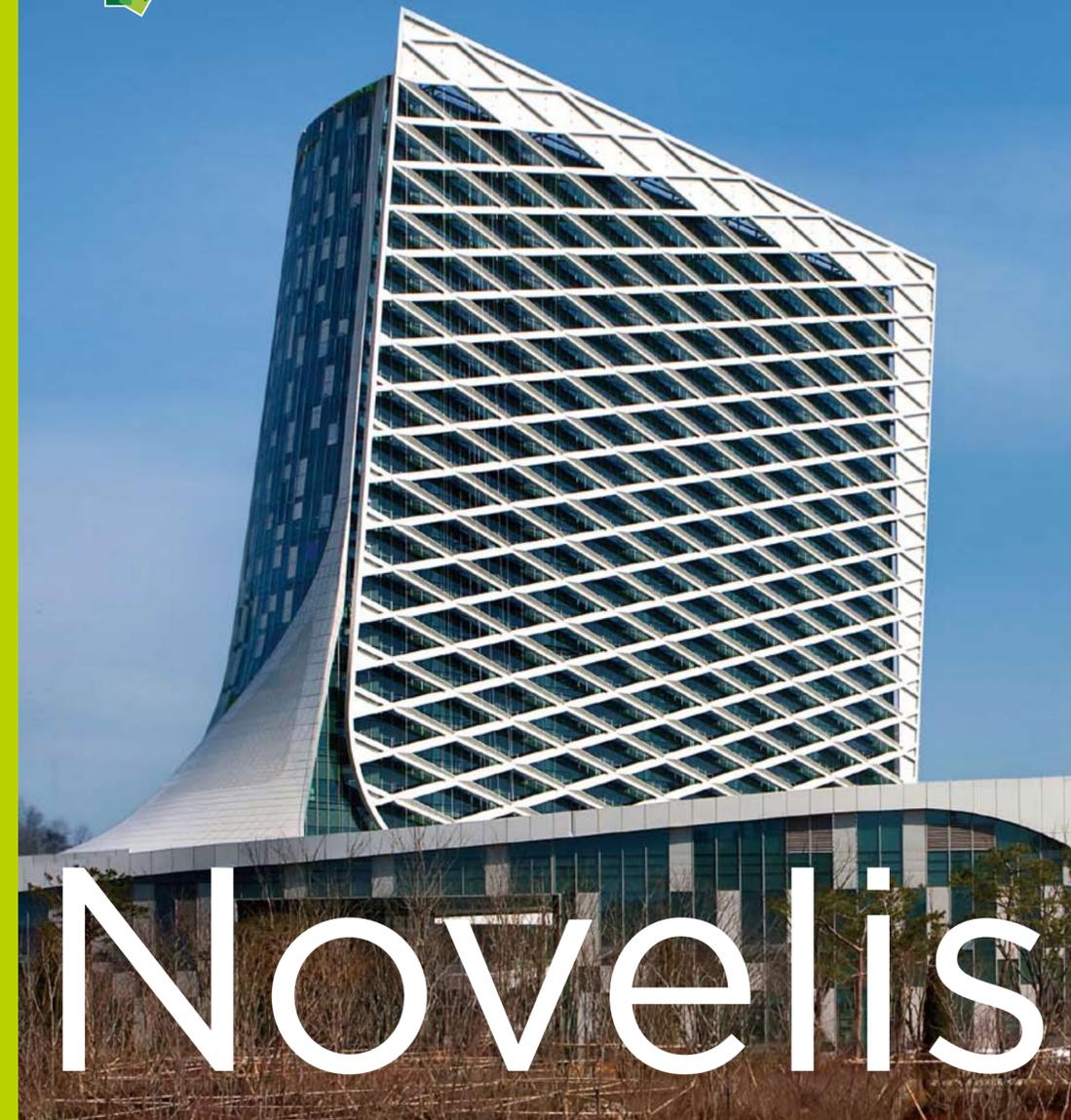
Novelis is the world's largest producer of rolled aluminum and the global leader in aluminum recycling. We supply premium aluminum sheet and foil products to the automobile, transportation, packaging, construction, industrial and consumer electronics markets throughout Asia, Europe, North America and South America. The company is part of the Aditya Birla Group, a multinational conglomerate based in Mumbai, India.

**Novelis Asia**  
23F, Yonsei Jaedan Severance Bldg.  
10, Tongil-ro, Jung-gu, Seoul 100-753  
South Korea  
Phone: +82 2 2259 1600  
coloris@novelis.com  
www.novelis.com



2015 - Printed in Korea on environmentally friendly paper

# Innovative Aluminum for Architecture



# Novelis

# Shaping Architecture for Tomorrow Novelis Coloris™

From the most dazzling public edifices to the most practical residential buildings, aluminum has been the material of choice for buildings for over a century. In particular, demand for pre-painted aluminum panels for building applications is increasing, not only for aesthetic reasons but also for greater longevity and sustainability of buildings.

Aluminum provides a variety of design possibilities, longevity and low operating cost during the use of the building. As well as weatherproofing, the material meets demanding physical property requirements.

Contrary to conventional aluminum panels that are produced by spray-coating finished articles, pre-painted aluminum panels are produced from aluminum sheet that is cleaned, treated and roll coated in a continuous process. The efficient and standardized process yields better quality and a uniform color than is usually obtained when post-painting formed panels.

Novelis Coloris™ pre-painted coils are an ideal material solution for architects who seek innovative design, economic value and sustainability.

## Coloris™: Ideal for Facades and Roofing

- Non-combustible
- Especially weather-resistant PVdF coating
- High strength, wide span-width, economical
- Very low maintenance requirements



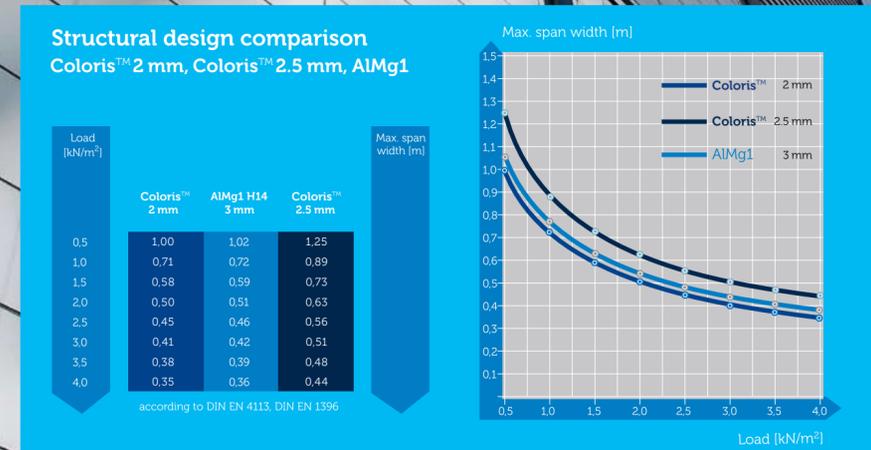
## Strong and Economical

### Coloris™ is lighter and strong

Made of a high-strength aluminum alloy, Coloris™ enables panel and roof manufacturers to achieve the same strength as post-painted aluminum panels made with conventional AlMg1 alloys with a lower thickness, resulting in weight reduction of one third per unit surface area. Even in large applications under high stress loads, e.g. in high rise buildings with extreme wind loads, Coloris™ is a good solution.

### Coloris™ is economical

As Coloris™ is made of a stronger alloy, building owners can achieve the same performance with less material usage per panel. Our higher strength alloy enables a wider span than the traditional alloy, resulting in significant cost savings.



## Beautiful and Durable

### Coloris™ uses the highest quality paints

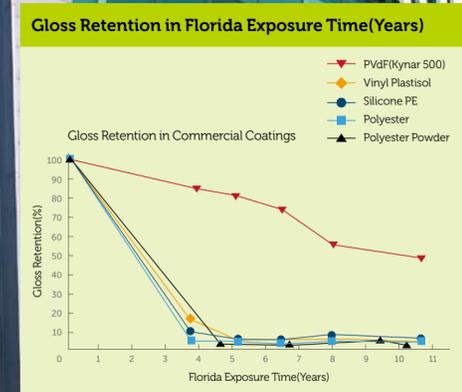
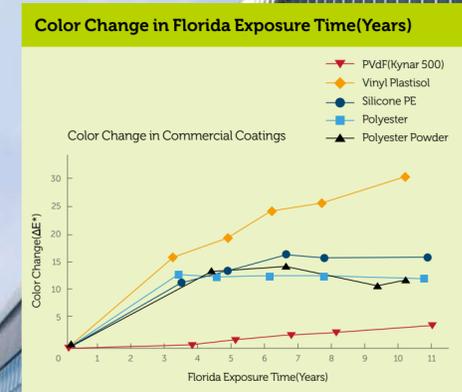
Coloris™ uses high quality polyvinylidene fluoride (PVdF) paints with exceptional weather resistance and ceramic inorganic pigments. The excellent durability of PVdF has been proven in the developed countries over the past decades. Homogeneous application of PVdF gives Coloris™ unequaled weatherproofing and allows a wide range of color effects. As the alloy is seawater resistant, Coloris™ can be used in extreme climate zones. The superb, long-lasting surface quality of Coloris™ gives buildings enduring architectural value.

### Coloris™ enables various colors and textures

From subtle to strong colors, from metallic shimmer or high-gloss to matt, from copper tones to natural terracotta effects, architects can realize whatever color and texture effects they want with Coloris™. Coloris™ offers the best solution for truly original and expressive architecture.

### Coloris™ guarantees consistent surface quality

Produced by continuous roll coating, Coloris™ shows unmatched surface quality compared with post-painted panels. The advanced roll coating of aluminum sheet promises consistent surface quality.



## Twenty Year Quality Assurance and Lean Supply Chain

### Coloris™ offers quality assurance for up to 20 years

With the traditional post-painted panels, consumers often had to deal with inconsistent coating quality, which was solely the responsibility of consumers. In contrast, the quality of Coloris™ is guaranteed by Novelis, the global leader in aluminum rolled products, based on the standards of the American Society for Testing and Materials. Confident in product quality, Novelis offers quality assurance for Coloris™ for up to 20 years.

### Coloris™ enhances quality control through lean supply chain

Coloris™ is produced in a highly efficient pre-painting process and delivered through a simplified supply chain. This results in more convenience for consumers and more rigorous quality management throughout the supply chain.

### From Production to Installation

Coloris™ pre-painted aluminum panels



Traditional post-painted aluminum panels



## Sustainable Building Material

### Coloris™ renders buildings more sustainable

Coloris™ is manufactured using an environmentally-friendly roll coating process that consumes less paint. Coloris™ also has a high recycling value as aluminum can be endlessly recycled. Novelis, with its cutting-edge recycling system, is the global leader in aluminum recycling.

### Coloris™ meets fire safety regulations

Countries around the world are tightening fire safety regulations, especially for tall buildings. Coloris™ panels are fire resistant and the roll coating technique ensures consistent coating thicknesses as required by international fire-resistance building codes.