

### **Understanding Ceramic Spandrel Glass**

Ceramic enamel spandrel glass is non-vision glass designed for architectural applications where the glass needs to be opaque. It is produced by applying a ceramic frit coating to the glass surface, which is then baked at high temperatures to create a permanent, durable finish. It is available as a monolithic, laminated or insulated glass unit.

#### **Applications**



Building facades
Decorative high opacity glass



Curtain walls

To cover structural elements



Interior partitions
Full opacity glass

Spandrel glass is not designed to be viewed as vision glass.

A dark, opaque background is required to ensure proper aesthetics and avoid light transmission through potential imperfections.

#### **Standard Colors**



\*Colors above are reference only and might differ due to screen calibration. Consult PGI for actual color samples.

#### **Custom Colors**

Custom colors are specially mixed to meet unique design specifications, allowing for precise color matching with specific architectural elements, based on industry standard color references, such as RAL, NCS and Pantone. Custom colors require extended lead times for development, formulation and approval before production.



# **FAQ**Ceramic Spandrel Glass

#### What is Ceramic Enamel Spandrel Glass?

Ceramic enamel spandrel glass is non-vision glass designed for architectural applications where the glass needs to be opaque. It is produced by applying a ceramic frit coating to the glass surface, which is then baked at high temperatures to create a permanent, durable finish.

#### Where is Spandrel Glass Used?

- Curtain walls to cover structural elements between floors.
- Building facades where a decorative but non-transparent glass is needed.
  - Interior partitions where full opacity is required.
- Commercial and office spaces where vision glass would expose unsightly mechanical systems or construction elements.

#### Can spandrel glass be used in areas where light will pass through it?

No, ceramic spandrel glass must always be installed against a dark or opaque background. If used without a backup material, imperfections like pinholes and coating inconsistencies may become visible, affecting the overall look. We always recommend discussing your installation conditions with our team to ensure the best results.

#### Why do I see small imperfections like pinholes or screen marks?

These are normal and within industry standards.

According to ASTM C1048-97 and GANA (Glass Association of North America) guidelines, minor pinholes, screen marks, and coating variations are acceptable as long as the glass is installed as intended (against an opaque background).

These are not defects but rather characteristics of the manufacturing process.

#### Can I use spandrel glass in transoms or interior partitions?

If your application requires partial transparency, spandrel glass is not recommended for transoms, partitions, or any location where it will be backlit or exposed to light transmission.

We can explore alternative solutions such as back-painted glass or custom opacified glazing systems for applications with transparency.

#### How is spandrel glass inspected for quality?

The industry standard for inspecting spandrel glass involves:

- \* Placing it against an opaque background to simulate final installation conditions.
- \* Viewing the glass from a distance of 10 feet under reflected light, as per ASTM standards.
- \* Determining acceptability based on pinhole size, screen marks, and overall coating uniformity.

## **Key Industry Standards & Guidelines**Ceramic Spandrel Glass

The following industry references outline the acceptable appearance and quality criteria for ceramic enamel spandrel glass:

#### **GANA Glazing Manual Guidelines**

"Glass with a fired-on ceramic frit should not be used except with an opaque backup construction."

Page 8 of GANA Manual '97.

"If used in locations where light may be seen through the glass, consultation with the fabricator is mandatory."

Page 8 of GANA Manual '97.

#### ASTM C1048-97 (Heat-Treated Flat Glass Standard)

#### **Appearance Guidelines**

"Pinholes, screen marks, and minor coating irregularities are permissible." Paragraph 9.5.1

#### Inspection Method

Glass should be evaluated under reflected light conditions at a 10-foot viewing distance, with an opaque background in place.

Paragraph 9.5.1

