



Spandrel Glass

PREL-COAT



SPANDREL GLASS

GENERAL INFORMATION

INTRODUCTION

Spandrel glass panels are opaque and generally used in the non-vision areas of curtain walls. These types of glass panels are placed between the vision areas and are used to mask the materials or construction that could be seen from the exterior of the building. Spandrel glass is available as monolithic glass, laminated glass or insulating glass units covered with an opaque coating. Depending on the colours used, spandrel glass can harmonize or contrast with the glass in the vision areas.

THERMAL TREATMENT OF GLASS

Monolithic spandrel glass is generally heat-strengthened to make it more resistant to the wind loads and high temperatures normally present in non-vision areas of curtain walls. If breakage occurs, the heat-strengthened glass will break into large sections similar to annealed glass. Heat-strengthened glass is twice as impact resistant as annealed glass of the same thickness, but it cannot be considered as a safety glass.

Tempered glass is usually recommended for more hazardous areas. It is high temperature resistant and is four times as impact resistant as annealed glass of the same thickness. If breakage occurs, fully tempered glass breaks securely in small and dull fragments, thus ensuring public safety. Fully tempered glass meets safety glazing standards.

DESCRIPTION

Ceramic frit coating is applied to the glass using a horizontal roller-coater and then heated in an oven at approximately 1150 °F (621 °C). Once this treatment is complete, the ceramic frit fuses to the surface of the glass. Ceramic frit is extremely durable and

HARMONIZING GLASS SECTIONS

Usually, vision areas of a curtain wall are made of double insulating glass units, while the panels in non-vision areas are made of monolithic glass. To achieve visual uniformity between the vision and non-vision areas, it is best to use glass with a low percentage of visible light transmission (VLT) in both areas. For instance, vision glass units could either be constructed with an exterior tinted glass ply or of certain types of reflective glass with pyrolytic coating on surface 2. For the spandrel glass, the same type of glass could be used with the opaque coating on surface 2. This will create a more uniformed look between the vision and the non-vision areas of the curtain wall.

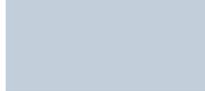
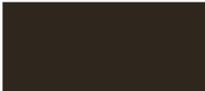
If a medium to high VLT percentage glass is preferred, you can attain a uniformed look by using insulating spandrel units. The opaque coating is then applied on surface 4 of the insulating unit. This adds depth to the spandrel glass and attenuates the differences in opacity between the vision and non-vision areas. In insulating spandrel units, the inner glass must be tempered at all times.

resists to cracks, scratches, discoloration and harsh chemicals. It should be noted that Prelco uses lead-free ceramic frit respectful of people and environmentally friendly.

AVAILABLE COLOURS

Prelco offers various standard colours and a large selection of non-standard colours. Non-standard colours are matched to samples provided by the specifier.

Exact colours can vary from the one illustrated below. Always proceed to the evaluation of a sample placed in its final environment. Please contact us to receive exact colour samples.

				
Ford Blue PC-9911	Evergreen PC-9902	Solar Grey PC-9901	Medium Grey PC-8948	Opacity White PC-8695
				
Solar Bronze PC-9904	Spruce Shadow PC-8282	Wolf Grey PC-8194	Warm Grey PC-8933V	White PC-9918
				
Lava Bronze PC-9905	Black PC-9907	Charcoal PC-9903	Feather Grey PC-8800	Morning Fog PC-10029

Light colours may require two applications of ceramic frit coating in order to obtain the desired level of opacity. Please contact us for more details.

INSTALLATION

INSULATED METAL PANS

To increase the level of thermal insulation in the non-vision areas of curtain walls, insulated metal pans are usually added behind spandrel glass. These metal pans are generally supplied by the curtain wall installer.

UNIFORM BACKGROUND

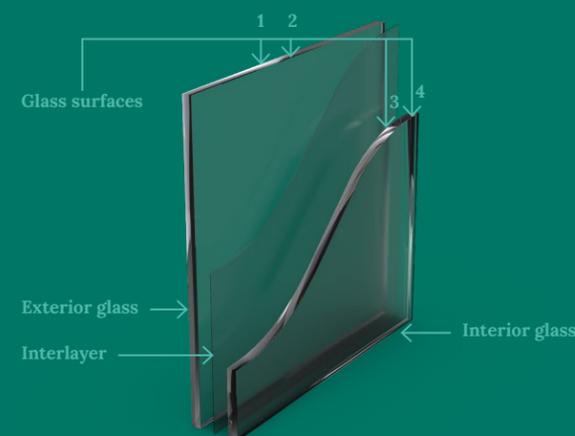
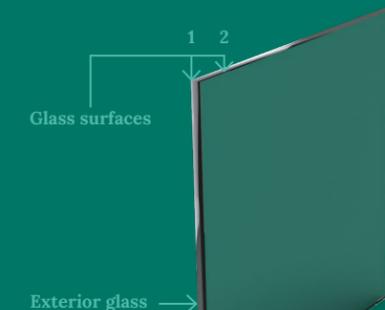
Spandrel glass is designed to be installed against dark uniform backgrounds. Therefore, light colours may require using a lighter background. It is recommended to always evaluate a sample properly by placing it in its final environment. Spandrel glass is designed to be installed against opaque backgrounds and one should not be able to see through it. Please contact us before setting up any application allowing the light shine through the glass.

*The structural silicone affixed to the back of a ceramic coated glass may be apparent depending on the color chosen. Preliminary tests must be carried out to ensure the result.

GLASS MAKEUP

MONOLITHIC GLASS

Ceramic frit coating is applied on surface 2 of the support glass*. The support glass must be heat-strengthened or fully tempered. It is not recommended exposing ceramic coating to the elements. Use on surface 1 therefore is not recommended.

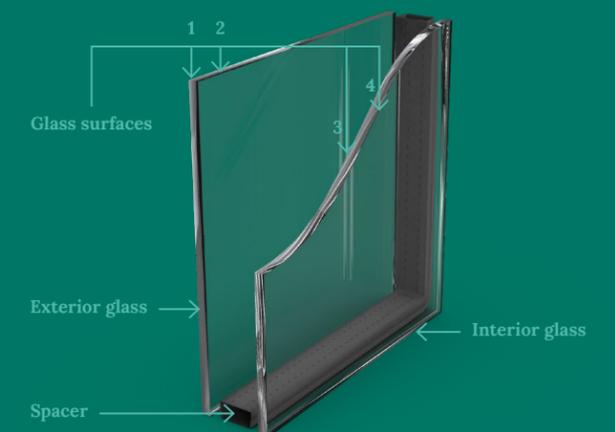


LAMINATED GLASS

Ceramic coating can be applied on surface 2 or 4 of a laminated glass*. Each sheet of laminated glass must be heat-strengthened or fully tempered.

INSULATING GLASS

Opaque coating can be applied on surface 4 of an insulating glass, in which case the exterior ply of glass can be heat-strengthened or fully tempered while the ceramic frit coated interior ply must be tempered.



*Certain conditions apply. Please contact us for more details.

PROJECT



Research Centre of the University of Montreal
Hospital Centre, Montréal, QC
Spandrel Glass Prel-Coat Wolf Grey PC-8194
NFOE & Associés Architectes/MSDL Architectes/
Jodoin Lamarre Pratte Architectes/Lemay & Associés
Architectes/Parkin Architects Ltd. en consortium
Photo: Stéphane Groleau

Cover picture
Jewish General Hospital – Block K, Montreal, QC
Insulating Glass Units and Prel-Coat Spandrel Glass
Jodoin Lamarre Pratte Architectes
Photo: Stéphane Groleau



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