

4 phases of ceramic frit glass development you need to know.



Ceramic frit glass is a screen printing technology that prints one or more layers of inorganic glaze (also called ink) on the surface of the glass to make the glass have patterns or patterns of different colors and then is heat-treated, tempered, or semi-tempered. The glaze is sintered on the glass surface to obtain a wear-resistant, acid, and alkali-resistant decorative material.



ceramic frit glass processing room

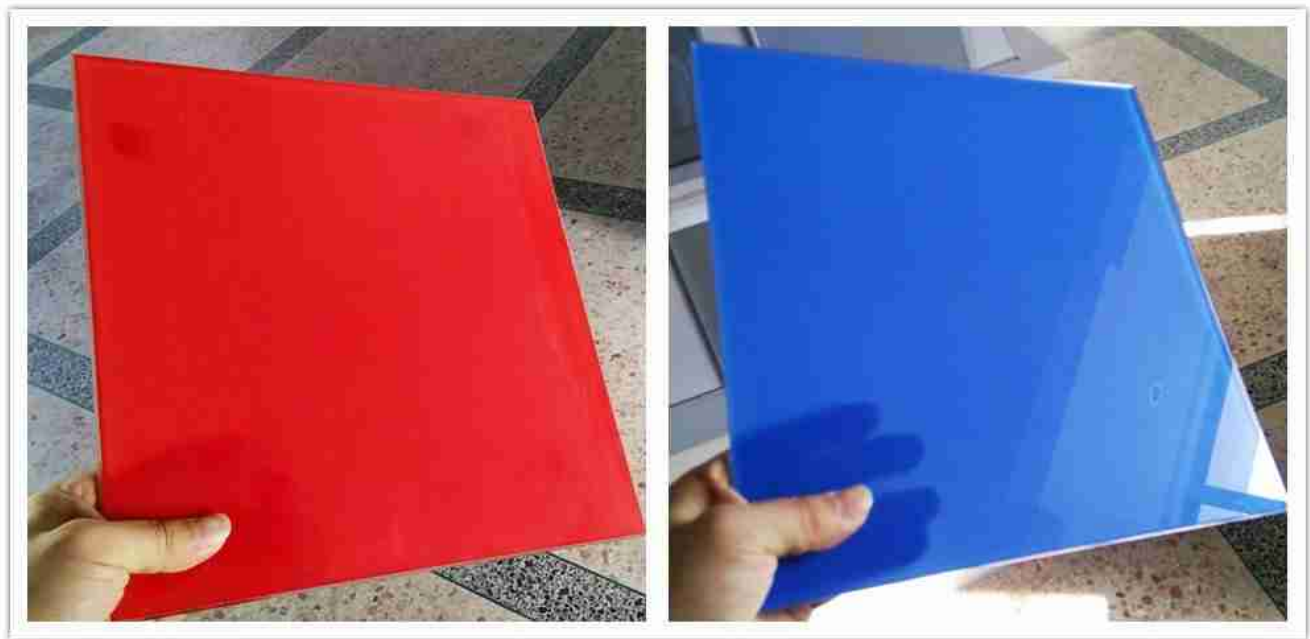
[Ceramic frit glass](#) is widely used in building decoration projects. Ceramic frit glass is light in weight and easy to install. The glaze will never fall off or fade. It has the characteristics of no moisture absorption, no permeability, easy to clean, and easy to match colors. It is an incomparable kind of new material comparing to stone, ceramics, wood, bricks, etc. Ceramic frit glass now is widely used in indoor and outdoor decoration, exterior wall decoration.

The application and development of ceramic frit glass can be divided into four phases:

Phase 1

The earliest architectural ceramic frit glass was monochromatic tempered ceramic frit glass, and then the ceramic frit tempered glass with multiple appearances of imitation marble or granite was printed. At this time, the curtain wall design is relatively conservative, and most of

them only use a single layer of colored ceramic frit tempered glass. The reason why the color glaze tempered glass is used is that the color consistency of the color glaze is better than that of natural stone, which can be repeated in large quantities without the obvious color difference in large-scale engineering projects caused by mineral reserves of specific color stones, and the price is relatively low. Lightweight, high strength, good safety, this is the primary phase of ceramic frit glass application.



Ceramic frit glass with simple full patterns

Phase 2

Architects realized that imitation is not able to meet the real need for the continuous development of construction glass. Based on the knowledge of the ceramic frit process, they gradually introduced ceramic frit tempered glass with simple geometric patterns such as stripes, dots, and blocks. It is mainly used for floor slabs and uprights to improve the appearance. At this time, ceramic frit glass is still dominated by single-layer tempered glass. This stage has got rid of imitation and entered the early stage of the free play of patterns and colors. However, because the architect

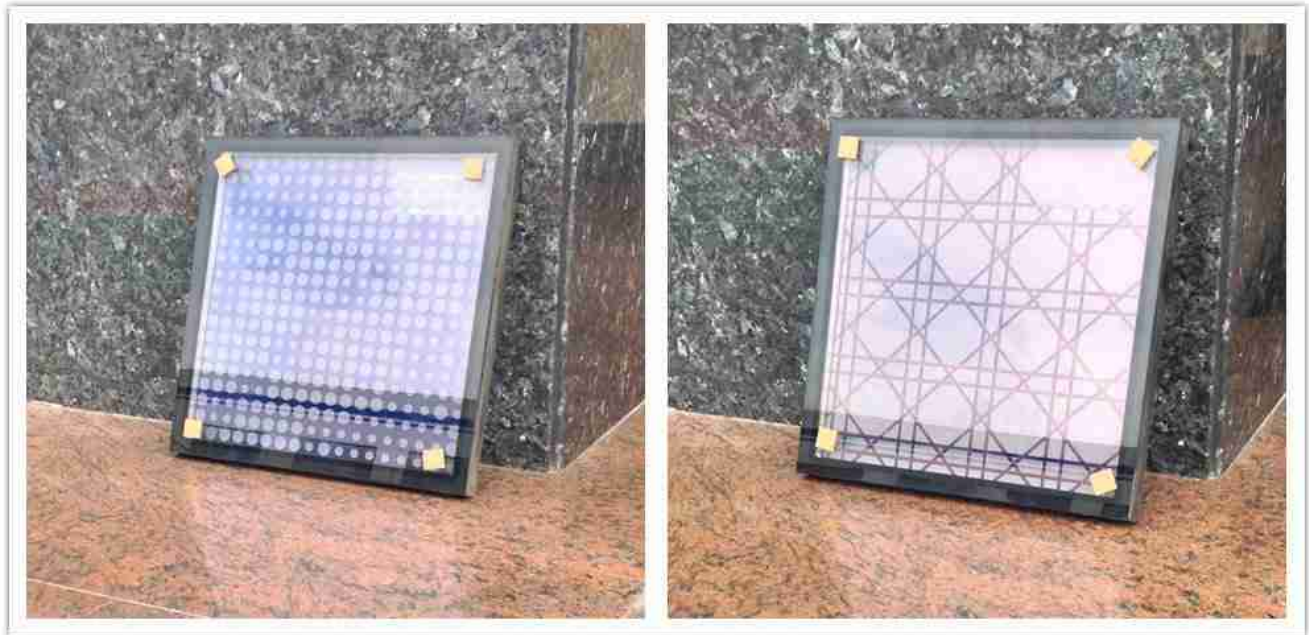
does not fully understand all the processes of glass deep processing, there are few ceramic frit glass products for further composite processing.



Ceramic frit glass with stripes, bars, dots, etc

Phase 3

Base on phase 2, the product form of ceramic frit glass was expanded to the form of composite glass such as ceramic frit coated glass and ceramic frit insulated glass. It expanded the product range of ceramic frit glass. Not only focuses on decorative functions, but it also began to pay attention to the energy-saving & soundproofing functions.



Ceramic frit glass with low e coating & insulated glass configurations

Phase 4

The compounding phase of matching color glazes appears at the time when Low-E insulating glass is becoming more and more popular because people pay more attention to the overall effect of the glass curtain wall. The structural components of the building itself, such as beams, columns, plates, tubes, etc., need to be covered, at least partially hidden, to beautify the appearance, and to highlight the overall design effect. At this time, the application of ceramic frit glass needs to be combined with the outdoor color of [Low-E insulating glass](#) at the window and the specific values of visible light transmission and reflection. After calculation, the coverage, dot size, color, etc. of ceramic frit glass should be determined and adjusted appropriately. Also, for building cladding, the patterns and colors of ceramic frit glass are properly and ingeniously designed. In many cases, ceramic frit can be used to replace the frosted glass or even colored glass. Ceramic frit glass can give designers [more inspiration and support](#).



Ceramic frit glass with creative light effects design.

The above is the general development of the ceramic frit glass. What else ideas do you have? [Welcome to discuss glass with us anytime!](#)