

opal70

circular & soft lines

A NEW ERA IN WINDOW AESTHETICS



Türkoba Mah. Fırat Plastik Cad. 23
Büyüçekmece 34537 İstanbul Turkey

T 0090 (212) 866 41 41 | 866 42 42
444 9 378 (FRT) | 0 800 219 80 20 **CUSTOMER SERVICE**
F 0090 (212) 859 04 00 | 859 05 00
E firat@firat.com | info@firat.com
export@firat.com

www.firat.com | www.firatpen.com.tr
www.winhouse.com.tr | www.gedizpen.com.tr

FACEBOOK | TWITTER | LINKEDIN [firatplastik](https://www.linkedin.com/company/firatplastik)

FIRAT



OPAL 70 WINDOW AND DOOR SYSTEM

THE ARTISTIC INTERPRETATION OF A WINDOW OPAL 70

If you are a person who can dream about the future without getting lost in the hassle of daily life; if your taste and understanding in aesthetics is indispensable for the decisions you make for comfort and pleasure; if you are interested in what is "different and special" instead of the standard one; if you expect exclusive solutions to bring distinction to your life; the Opal 70 Series was designed for you. It unites those looking for the artistic solutions with the art in window design. The Opal 70 Series implements art into windows with rounded features and aesthetically elegant structure. Owing its authentic rounded design is much more different than the conventional oval series of the modern era. The Opal 70 Series is up for becoming the new choice of architects searching for a distinctive approach at aesthetics.

AESTHETICS

The Opal 70 window system provides aesthetically exclusive look to windows, especially at the connection point of the mullion and frame profile. The series enhances the elegance of windows and satisfies your expectations through 21 different lamination color and pattern options.

SYSTEM

- The system has a profile width of 70 mm.
- It is designed to have 5 chambers.
- In the system it is possible to use glass units of up to 32 mm.
- The Opal 70 Series meet all requirements in wind load resistance, water and air impermeability parameters by means of its profile width, number of chambers and impermeability system.
- With oval glazing bead profiles it brings the smooth features of the exterior into the interior as well.
- The system is compatible with 13 axis espagnolettes.
- It was designed to conveniently provide solutions for all architectural technicalities through its detailed and auxiliary profiles.

WIND LOAD RESISTANCE

- The Opal 70 system successfully passed safety test of 3.000 Pa (245 km/h) wind load resistance.
- While designing Opal 70 system's reinforcement steel and their locations inside the profiles, the maximum wind load values to which the buildings can be exposed were taken into the consideration.
- The system easily meets the resistance value requirements for covering the wide openings via its detailed and box profiles.

AIR AND WATER IMPERMEABILITY

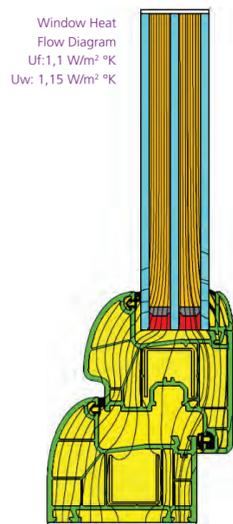
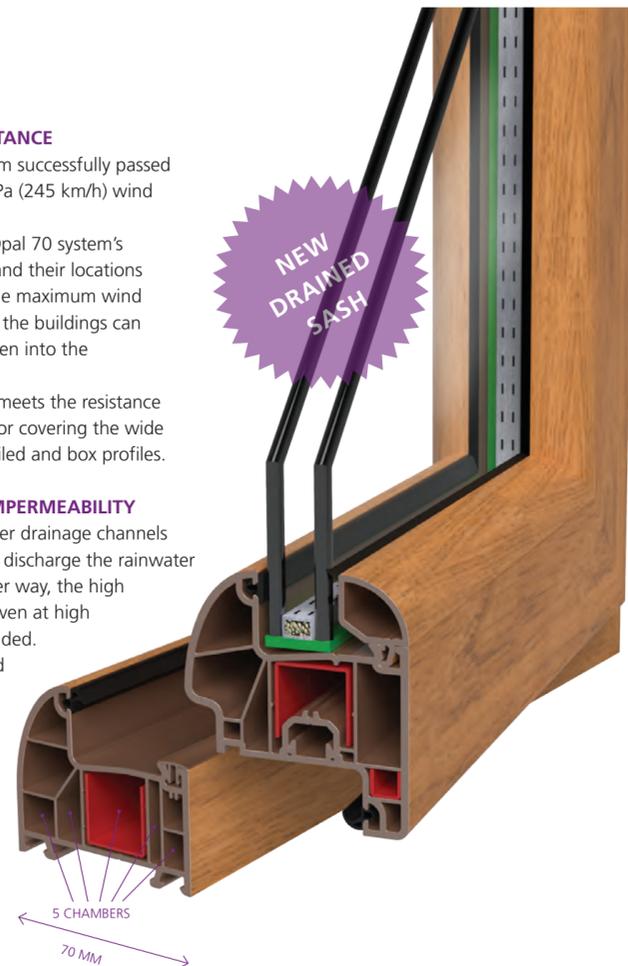
- Thanks to the water drainage channels and sets designed to discharge the rainwater faster and in an easier way, the high resistance to water even at high wind loads was provided.
- Under tests carried out with 600 Pa (110 km/h) wind load and 4 liters of rainwater per minute, the system did not leak any water inside and proved its high quality.

HEAT INSULATION

- By means of the chamber numbers, chamber widths and profile heights developed in consideration of the profile width, the Opal 70 Series is able to meet all the requirements regarding thermal conductivity coefficient.
- In accordance with the TS EN ISO 10077-2 standard, the window system with the dimensions of 1,23 m x 1,43 m has achieved the values of Ug: 0,8 W/m2K, Uw: 1,15 W/m2K and Uf: 1,1 W/m2K.

SOUND INSULATION

- The Opal 70 Series provides sound insulation with values up to 40 dB. Therefore, it is possible to create a sound environment at a high quality life level even at the loudest places.
- The sound insulation level to be acquired via acoustic glasses that can be used with the system has maximum efficiency.



COLOUR AND DESIGN CHART

PROFILE WIDTH
70 mm

NUMBER OF THE CHAMBERS
5

PROFILE HEAT INSULATION (W/M²K)
1,1 W/m² °K

WINDOW HEAT INSULATION (W/M²K)
1,15 W/m² °K

SOUND INSULATION
40 db

AIR PERMEABILITY
CLASS 4

WATER IMPERMEABILITY
CLASS 9A

WIND LOAD RESISTANCE
CLASS C3

The calculations were made by using a glass unit with a thermal conductivity coefficient of **0,8 W/m² °K** for a window with dimensions of **1,23x1,43 m** in accordance with the standard **TS EN ISO 10077-2**.



OPAL 70 SERIES PROFILES

