

Garnet70 Garnet70

Strong

Selective Strong

NEW ERA IN SERIES OF 70MM WIDTH



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
info@firatpen.com.tr | musterihizmetleri@firat.com

www.firat.com | www.firatpen.com.tr
www.winhouse.com.tr | www.gedizpen.com.tr
FACEBOOK | TWITTER | LINKEDIN | FIRATPLASTIK | INSTAGRAM | FIRATPLASTIKTR
FACEBOOK | FIRATPEN | TWITTER | FIRATPENTR | INSTAGRAM | FIRATPENTR
FACEBOOK | WINHOUSE | TWITTER | WINHOUSETR | INSTAGRAM | WINHOUSETR

FIRATPEN

winhouse

Gedizpen

1182-4106001110 - A - 22.02.2018

GARNET SELECTIVE STRONG & GARNET STRONG WINDOW AND DOOR SYSTEM

NEW ERA IN SERIES OF 70MM WIDTH

GARNET SELECTIVE STRONG & GARNET STRONG

Today's city culture and structural technologies are shaped at totally new dimensions. Cities are full of differentiating silhouettes caused by this change. New living areas make aesthetics, isolation, comfort, and efficiency principles to come forward. Following closely this change, we fulfil the need of the differentiating construction technologies with a new series. Garnet Selective Strong with Class A wall thickness and Garnet Strong, both of which interpret the 70 mm series with triple sealing system and a different aesthetics and isolation perspective, are the new choice of the modern structures.

ABOVE-STANDARD SOLUTIONS WITH 70 MM SERIES

Garnet Selective Strong and Garnet Strong Series, which were designed to bring new dimension to the quality and aesthetic understanding of the window standard, increase the comfort in your living areas with the excellent heat and sound insulation. With their oval lines, Garnet Selective Strong of Class A wall thickness and Garnet Strong both of whose all profiles have got 70 mm width, 5 chambered design and triple sealing system are the new choice of the architecture that seeks a different aesthetics. Garnet Selective Strong and Garnet Strong Series fulfil the expectations of the new trends with their 21 different color options and start a new era in the 70mm series of windows providing excellent heat and sound insulation in the modern structures. The series develop different alternatives that are compatible with your furniture and wall color and the outer facade of the buildings.

SYSTEM

→ Garnet Selective Strong and Garnet Strong systems, which provide esthetical integrity thanks to the Oval Drained Sash profile, have two different drained sash profiles options. Oval drained sash profile has the same ovality with the frame; and another drained sash profile is with sharper edges, these are also offered with Garnet system, depending on the customers demand.

→ All main profiles of Garnet Selective Strong and Garnet Strong series have a width of 70 mm.

→ Garnet Selective Strong has Class A wall thickness and triple sealing system; Garnet Strong has Class B wall thickness and triple sealing system.

→ While the system has 4 different types of oval shaped glazing beads which increase the interior width, it also offers 4 different decorative glazing bead profile alternatives.

→ It can solve all the architectural details thanks to its detailed and auxiliary profiles designed compatible with its main profiles.

→ Glass application until 40 mm can be done thanks to the system's glazing bead profiles.

→ With its 21 different laminated color applications, Garnet and Garnet Selective series present options that will meet decorative expectations of your house and add value to it.

WIND LOAD RESISTANCE

→ Garnet system is designed according to 3.000 Pa (245 km/h) safety test on wind load and 600 Pa (110 km/h) water impermeability strength test, and it has successfully passed these tests.

→ The Garnet Selective Strong Series which has Class A wall thickness offers perfect solutions to provide resistance in high wind load structures.

→ While developing Garnet system, the maximum wind load values to which the buildings can be exposed, were taken into consideration; the structure of the reinforcement steel and their locations inside the profiles were designed in the most effective way.

→ The system whose detailed and box profiles provide solutions to meet the architectural needs, easily ensures the closure of the wide openings and necessary resistance values.

WATER AND AIR IMPERMEABILITY

→ Garnet Selective Strong and Garnet Strong Series were designed with triple sealing systems to provide water and air impermeability at maximum level.

→ Prevention of air passage from outdoors to indoors, which is necessary for energy saving, was improved with a middle seal in addition to inner and outer seals.

→ Thanks to its water drainage angle and sets to discharge the rainwater in a faster and easier way, Garnet system provides high resistance to water even at high wind loads.

→ The system did not let any water inside and proved its high quality under the tests carried out with 600 Pa (110 km/h) wind load and 4 liters of rainwater per minute.

HEAT INSULATION

→ While the profile designs of the Garnet Selective Strong and Garnet Strong Series were made, the value of the coefficient of thermal conductivity was intended to be at minimum levels, which is the most important part of energy saving.

→ Profile width, chamber numbers and chamber width of the system were created to keep the heat and sound insulation at the maximum levels.

→ With the 3rd middle seal system, the best possible values in a PVC window system have been reached.

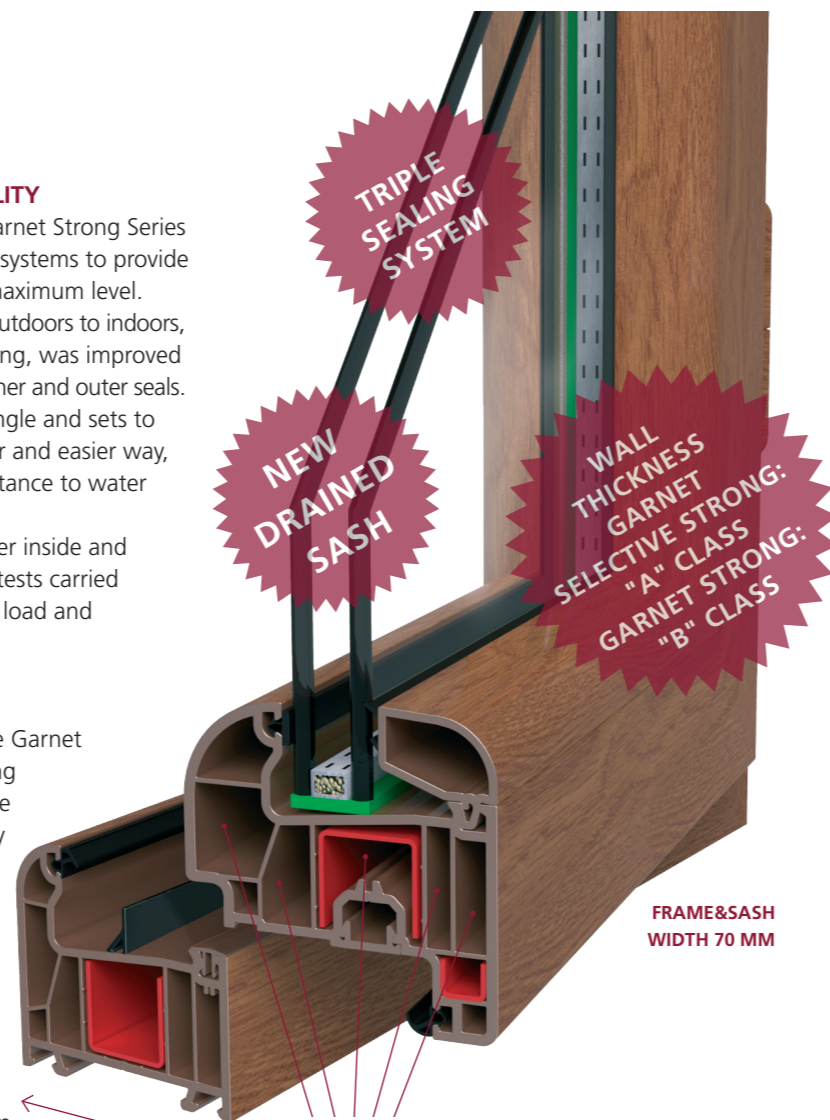
→ All profiles of Garnet system have a structure of 5 chambers and since the chamber width is large, low level thermal conductivity coefficient values are provided.

→ Compatible with TS EN ISO 10077-2 standards, Ug: 0.7 W/m²K, Uw: 1,05 W/m²K, and Uf: 1.2 W/m²K values were accomplished with the windows system which has a size of 1,23m x 1,43m.

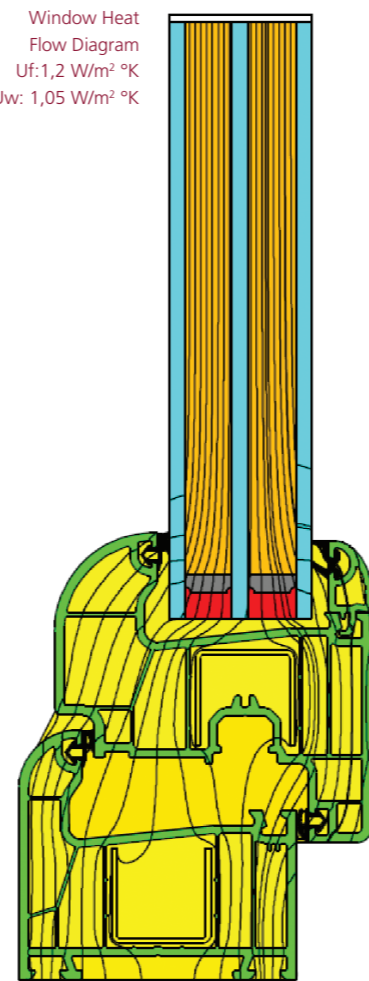
SOUND INSULATION

→ One of the most important criteria in window systems is the sound insulation. High sound levels about 70dB in the areas close to airports, railways or crowded highways are decreased to values under 30 dB with Garnet Selective Strong and Garnet Strong systems, at which a child can sleep easily.

→ Sound insulation up to 40 dB value can be provided with Garnet Selective Strong and Garnet Strong series. Therefore, it is possible to create a sound environment at a high quality life level even at the loudest places.



Window Heat Flow Diagram
Uf: 1,2 W/m² °K
Uw: 1,05 W/m² °K



COLOUR AND DESIGN CHART



GOLDEN OAK



OAK



MAHOGANY



DARK OAK



EICHE RUSTICAL



DARK GREEN



WALNUT



ANATAK



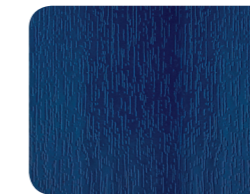
ANTHRACITE



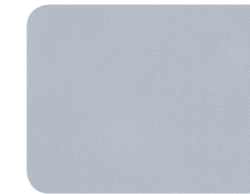
CEDAR



WINCHESTER



STEEL BLUE



GREY



CREAM WHITE



WHITE



SILVER BRUSH EFFECT



TROMPET



MACORE



BLACK



SILVER D (SILVER GREY)



ALUMINIUM BRUSH EFFECT

PROFILE WIDTH
70 mm

WALL THICKNESS
GARNET SELECTIVE STRONG "A" CLASS
GARNET STRONG "B" CLASS

NUMBER OF SEALS
3

NUMBER OF THE CHAMBERS
5 pcs

SOUND INSULATION
40 db

AIR IMPERMEABILITY
CLASS 4

WATER IMPERMEABILITY
CLASS 9A

PROFILE HEAT INSULATION
1,2 W/m² °K

WINDOW HEAT INSULATION
1,05 W/m² °K

WIND LOAD RESISTANCE
CLASS C3

GLASS THICKNESS
5, 20, 24, 32, 40 MM

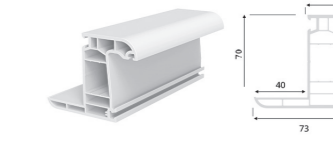
The calculations were made by using a glass unit with a thermal conductivity coefficient of 0,7 W/m²°K for a window with dimensions of 1,23x1,43 m in accordance with the standard TS EN ISO 10077-2.



GARNET STRONG SERIES PROFILES



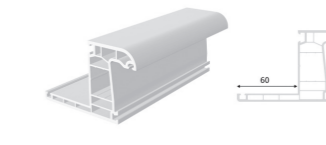
FRAME PROFILE



LINING FRAME PROFILE



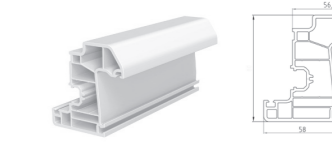
35 MM LINING FRAME PROFILE



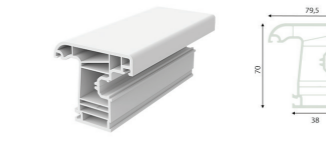
WIDE LINING FRAME PROFILE



SASH PROFILE



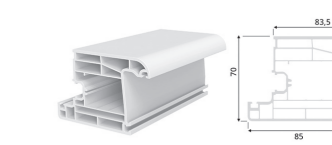
DRAINED SASH PROFILE



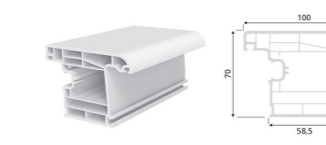
OUTSIDE OPENING SASH PROFILE



MULLION PROFILE



INSIDE OPENING DOOR PROFILE



OUTSIDE OPENING DOOR PROFILE



SASH ADAPTING PROFILE



SINGLE GLAZING BEAD PROFILE (5 MM)



DOUBLE GLAZING BEAD PROFILE (20 MM)



DOUBLE GLAZING BEAD PROFILE (24 MM)



TRIPLE GLAZING BEAD PROFILE (32 MM)



Garnet 70 window with an adapter



Tilt and Turn Windows

