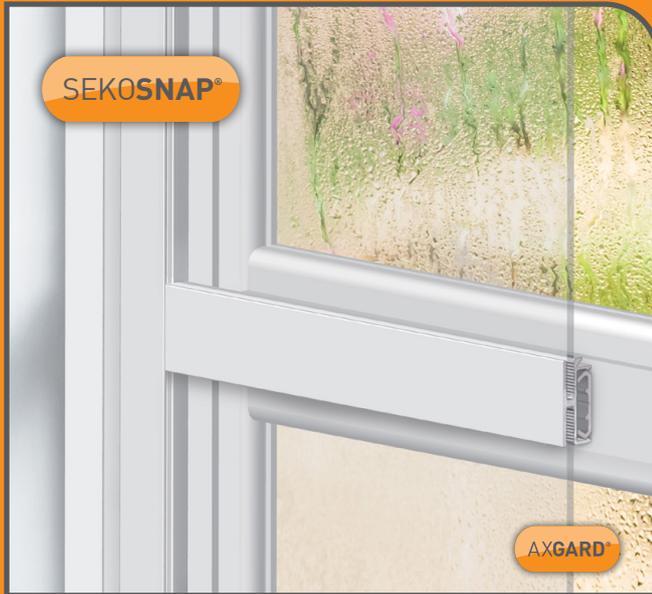


SEKOSNAP®

**Superior Secondary Glazing System
Technical Guide**





SEKOSNAP® has been designed and manufactured to provide a high quality Secondary Glazing System that is affordable and provides all the features that are required for the perfect result! The Patented and Registered design of SEKOSNAP® Secondary Glazing System allows it to be used with either 2mm or 3mm AXGARD® and provides a huge range of benefits for use in general housing, recreational, public, commercial and listed buildings.

Installing SEKOSNAP® Secondary Glazing can lower your heating bills, provide security, and even increase the value or saleability of the building. SEKOSNAP® Secondary Glazing is normally a far lower cost than replacement windows, and has the advantage that it is easy to install by anyone with only DIY skills.

Qualities:

- ✓ Manufactured from long-lasting high quality aluminium
- ✓ Concealed fixings
- ✓ Easy to install
- ✓ UV Stable
- ✓ Highly durable
- ✓ Sustainable - recyclable
- ✓ Slimline design
- ✓ Improves energy efficiency
- ✓ Suitable for listed buildings
- ✓ Can be used for housing, recreational, public and commercial buildings
- ✓ Can be installed DIY
- ✓ Reduces draughts
- ✓ Suits 2mm and 3mm glazing
- ✓ Improves security
- ✓ Can help protect against vandalism
- ✓ Lower cost than replacement windows
- ✓ Can increase the value of your home
- ✓ Helps to reduce noise
- ✓ Can be installed inside or outside
- ✓ Secret removal back-hook

Common uses:

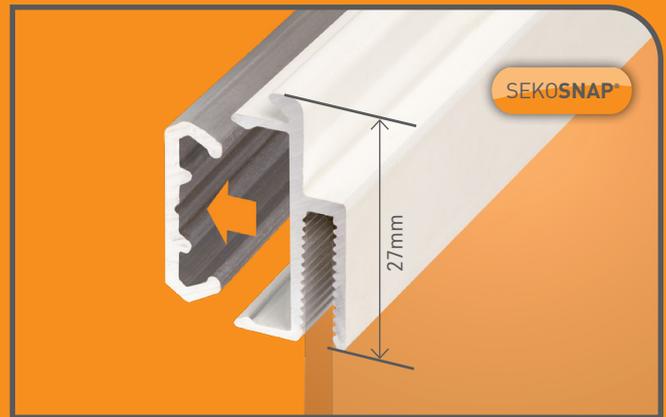
- ✓ Listed buildings
- ✓ Conservation areas
- ✓ Offices
- ✓ Schools
- ✓ Hospitals
- ✓ Hotels
- ✓ Portable building / cabins
- ✓ Sheds and out buildings



SEKOSNAP® is designed with a neat, slimline unobtrusive style which allows you to achieve the all the needed results of Secondary Glazing and without spoiling the character of your original windows. As SEKOSNAP® is super easy to cut to size, it is suitable to fit nearly all window sizes.

SEKOSNAP® : Side Section

The base section is screwed securely to your window frame, and then upper section complete with 2mm or 3mm AXGARD® glazing sheet is snapped on to the base trim providing a secure fix with no visible fixings. The registered design of SEKOSNAP® also includes a discrete back-hook design to the hidden outer side of the upper section, which provides a secret gripping area for force to be applied to remove the SEKOSNAP® system. Removing SEKOSNAP® is popular for allowing cleaning, and during summer months when the weather is warmer. Samples of SEKOSNAP® side section and AXGARD® are available for testing.



SEKOSNAP® : Joint Section

This SEKOSNAP® joint section allows glazing with 2mm or 3mm AXGARD® to be joined for example in very high windows. This also will act as a mini transom section which will improve the rigidity for larger spans. Samples of SEKOSNAP® joint section and AXGARD® are available for testing.



SEKOSNAP® : Product Codes

Here are a list of the standard sizes that SEKOSNAP® is manufactured in. Special production can be made for bespoke requirements for larger contracts.

Length	Description	Code
2.0m	SEKOSNAP® Side Fix Kit - White	SEKO420W
3.0m	SEKOSNAP® Side Fix Kit - White	SEKO430W
6.0m	SEKOSNAP® Side Fix Kit - White	SEKO460W
2.0m	SEKOSNAP® H Connector Fix Kit - White	SEKO620W
3.0m	SEKOSNAP® H Connector Fix Kit - White	SEKO630W
6.0m	SEKOSNAP® H Connector Fix Kit - White	SEKO660W

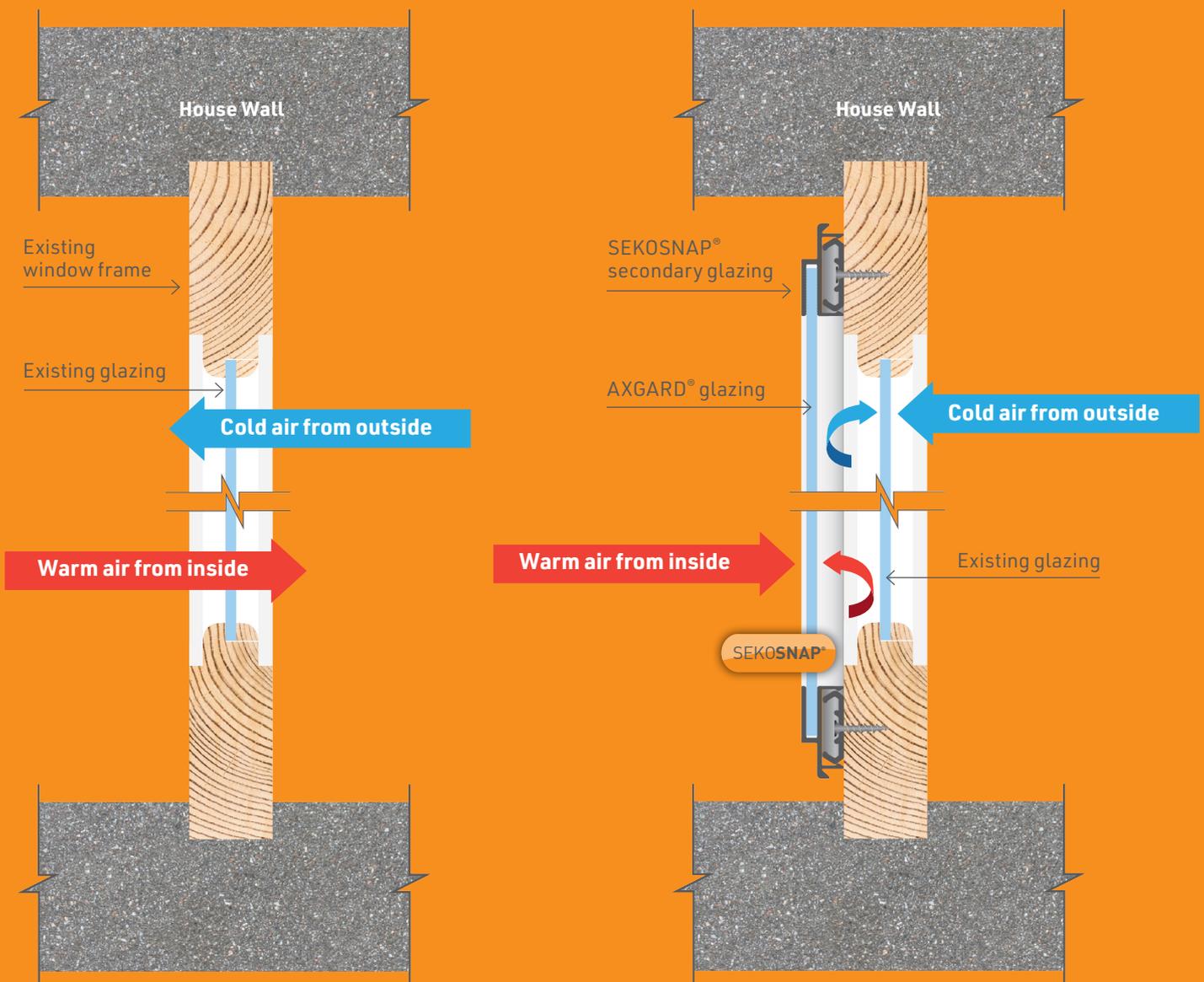
SEKOSNAP® : Typical Window with and without Secondary Glazing

Reducing heat loss with SEKOSNAP® can not only save you money on heating, but also helping you to create a more environmentally friendly home or building. SEKOSNAP® works by adding a layer of glazing to you existing windows and creating a gap in between, which acts as an insulation or heat trap. This SEKOSNAP® barrier in turn improves heat retention within your room and reduces draughts making your home more energy efficient, environmentally friendly, and reduces your energy bills!

SEKOSNAP® also provides some other benefits such as reducing condensation, and sound reduction. In addition

SEKOSNAP® combined with AXGARD® glazing sheets provide a further layer of security and an intrusion deterrent

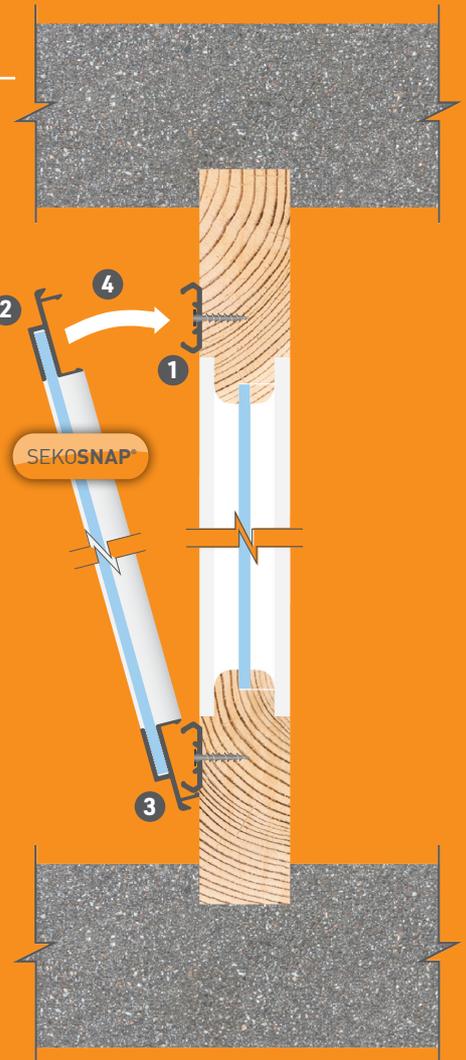
Extruded from aluminium, SEKOSNAP® offers a long lasting and non-combustible secondary glazing option which with UV Stable Powder coating will retain its appearance for years to come. The use of durable and sustainable materials used in the manufacture of SEKOSNAP® means it is fully sustainable and can be fully recycled. Also the high durability and strength of SEKOSNAP® means it is designed for use on outside surface of windows, which provides excellent protection against vandalism where applicable.



SEKOSNAP® secondary glazing creates an air-gap reducing the hot/cold air thermal transmission.

SEKOSNAP® : Rapid Installation

1. Measure, cut and screw fix into position the SEKOSNAP® base bars on to the existing window frame on all sides, either mitre or block the corners.
2. Measure and cut the SEKOSNAP® top clip bars to the same sizes as the base bars.
3. Position the bottom SEKOSNAP® top clip bar and the AXGARD® glazing sheet to the first fixing position base bar.
4. Snap fix the top SEKOSNAP® top clip bar and the AXGARD® glazing sheet to the top base bar using a soft mallet hammer.



SEKOSNAP® : Rapid Removal

1. Hook under the top lip.
2. Pull back to release the top cap



Benefits:

- ✓ Removal for summer
- ✓ Replace damaged panels
- ✓ Easy to re-use

SEKOSNAP® : Corner Joints

SEKOSNAP® is designed to allow for a choice of corner finishes.

The square butt corner joint is the easiest way where either the vertical or horizontal sides will extend beyond the other for a neat square butt joint finish as shown.

Alternatively by cutting all corners with a 45 degree mitre the profiles can be neatly joined as illustrated.



Square butt base plate and front top clip corner joint



SEKOSNAP®



SEKOSNAP®



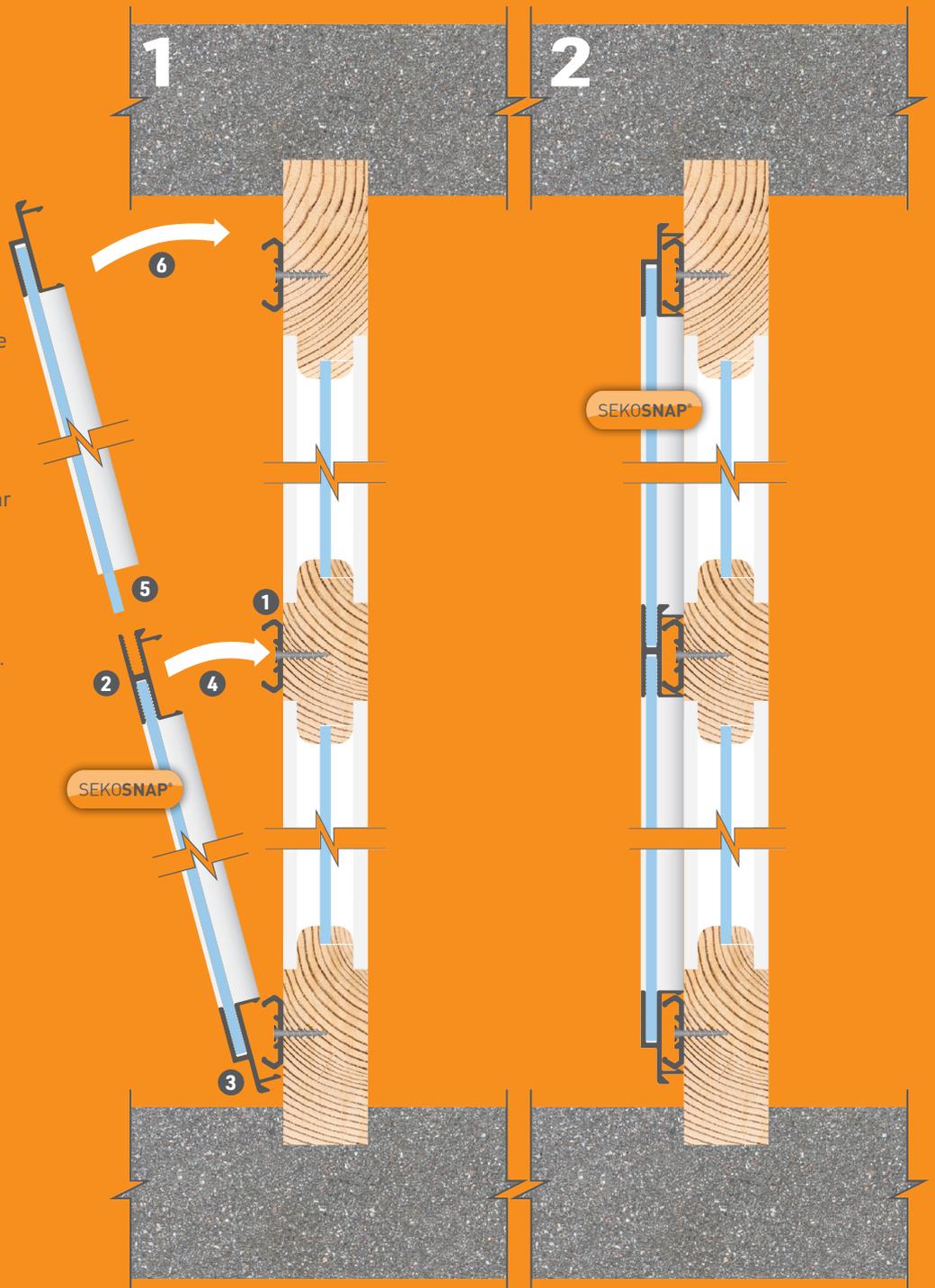
SEKOSNAP®

45 degree mitre base plate and front top clip corner joint

SEKOSNAP® : H-Connector Bar

SEKOSNAP® H-Connector allows a modular system which means that SEKOSNAP® can be used for almost any size of window.

1. Measure, cut and screw fix into position the SEKOSNAP® base bars on to the existing window frame on all sides, either mitre or block the corners.
2. Measure and cut the SEKOSNAP® horizontal top clip bar to the same sizes as the base bar.
3. Position the bottom SEKOSNAP® top clip bar and the AXGARD® glazing sheet to the first fixing position base bar.
4. Snap fix the top SEKOSNAP® top clip bar and the AXGARD® glazing sheet to the top base bar using a soft mallet hammer.
5. Allow an overhang of the AXGARD® glazing sheet to slot in to the second half of the SEKOSNAP® horizontal top clip.
6. Snap fix the top SEKOSNAP® top clip bar and the AXGARD® glazing sheet to the top base bar .



SEKOSNAP® : Typical U-Values

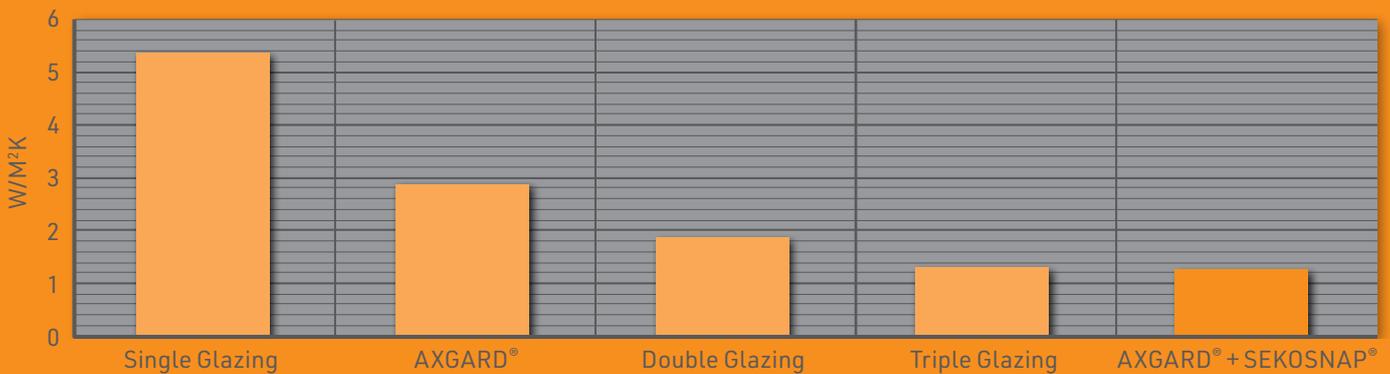
SEKOSNAP® is proven to reduce heat loss and improve the thermal performance of your windows.

The most common measurement of thermal performance is u-value which measures the rate of transfer of heat through a material. The lower the u-value, the more slowly heat transfers through the material and therefore the better insulation it offers.

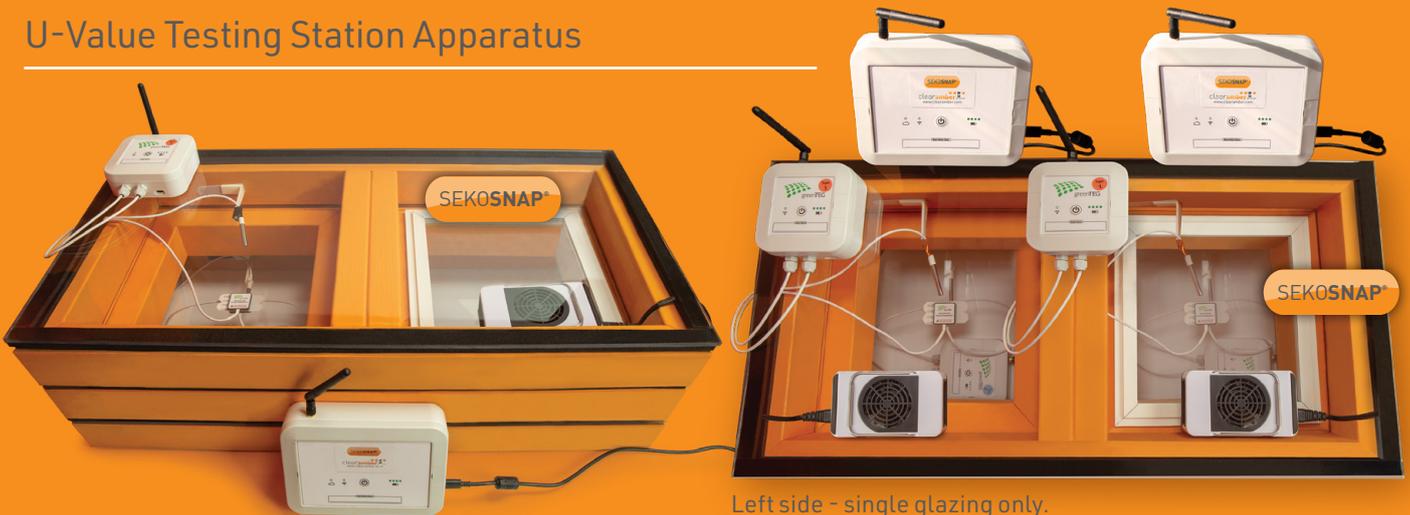
We ran a controlled experiment to measure the improvement in u-value that SEKOSNAP® instigates. We ran the same test twice with and without SEKOSNAP® to measure the difference in u-value. We found that the addition of SEKOSNAP® improved the u-value of our 'window' by 1.638W/m²K which represented a 53.84%* improvement!

* U-value and % u-value difference may vary depending on the original window material

Typical U-Values Chart with SEKOSNAP® Results



U-Value Testing Station Apparatus



Left side - single glazing only.
Right side - single glazing with SEKOSNAP® and AXGARD®.

Glazing Type	U Value
Single Glazing	4.8 - 5.8 W/m ² K
Double Glazing	1.2 - 3.0 W/m ² K
Triple Glazing	0.9 - 1.6 W/m ² K
AXGARD®	2.832 W/m ² K
AXGARD® + SEKOSNAP®	1.194 W/m ² K

	Without SEKOSNAP®	With SEKOSNAP®	ISO 9869
Measurement Length	3.25d	3.25d	OK (>3D)
dR2/3	0.25%	2.91%	Yes (Not more than 5%)
dR24	0.19%	1.5%	Yes (Not more than 5%)
ISO Conformity			Fulfilled

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Inasmuch as Clear Amber have no control over the circumstances in which our material may be used, or site specific parameters, we cannot guarantee that any particular results will be achieved. Users should carry out their own tests to determine the suitability of the material for their application. Installers should satisfy themselves that published permissible loadings and bar spacings for SEKOSNAP® structures, together with any supporting posts, frames, or walls and fixings, are sufficient to provide adequate strength for the intended use and to meet regional loading requirements. Installers should also obtain their own job-specific structural engineer's report for their individual site. Samples are readily available to users to test and verify the exact sizes according to their site requirements.