

Pilkington Spectrum
Registration and user guide

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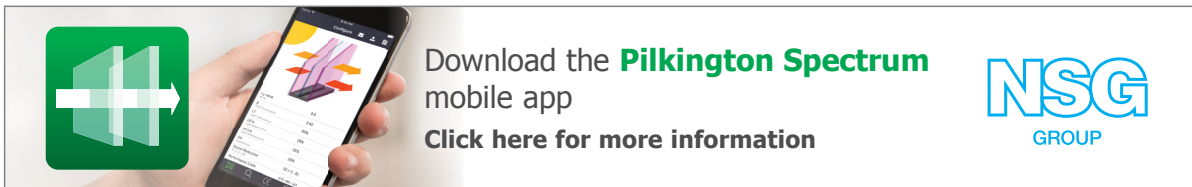
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Registration

Please find below a 5-step guide to register and access our Pilkington Spectrum configurator.

It's accessible for free both from your computer and on your smartphone by downloading the Pilkington Spectrum app from AppStore or Google Play.

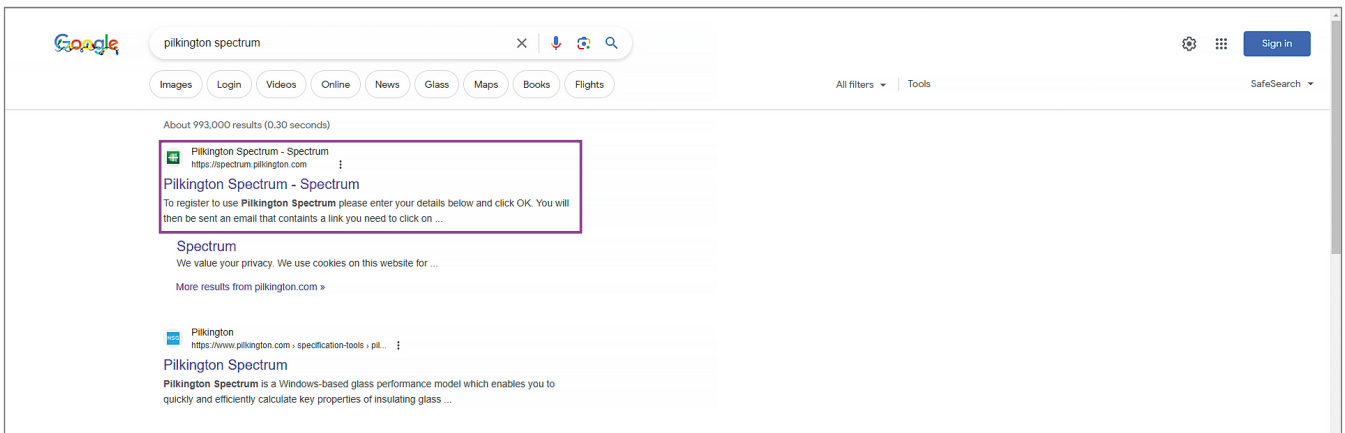


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1) Open your browser and type in "google.com". Next, type "Pilkington Spectrum" and press Enter:



2) Pick the first result. If you haven't registered to use Pilkington Spectrum yet, please enter your details (mandatory fields are marked with*), select your own country, and click OK.:

To register to use Pilkington Spectrum please enter your details below and click OK. You will then be sent an email that contains a link you need to click on to validate your email address. Once you have done this you can start using Pilkington Spectrum.

First Name *
Last Name *
Job Title
Email Address *
Please re-enter your email address *
Country: United Kingdom (UK) [v]
Country list: Ελλάδα (Greece), Unknown Region (IS) (Iceland), India (India), Ireland (Ireland), Italia (Italy), Latvija (Latvia), Luxembourg (Luxembourg), Република Македонија (Macedonia), Malaysia (Malaysia), Malta (Malta), Nederland (Netherlands), Norge (Norway), Polska (Poland), Россия (Russia), Srbija (Serbia), Slovenija (Slovenia), España (Spain), Sverige (Sweden), Schweiz (Switzerland), United Kingdom (UK)

Company Address
Company Name *
Business Type
Building No/Name
Street
Postcode
City
Tel Number

Please tick if you would like to receive further information from Pilkington in future. This includes updates of the Spectrum program

Post
 Email
 Phone
 SMS
 Email

Yes, I would like to receive the eBulletin, to be kept informed

OK

3) Check that the data entered, as well as your country, is correct. Tick if you want to receive our eBulletin, then click OK:

PILKINGTON Spectrum

Please re-enter your email address *
Country: United Kingdom (UK) [v]

Company Address
Company Name *
Business Type: Architect [v]
Building No/Name
Street
Postcode
City
Tel Number

Please tick if you would like to receive further information from Pilkington in future. This includes updates of the Spectrum program


Post
 Email
 Phone
 SMS
 Email

Yes, I would like to receive the eBulletin, to be kept informed

OK

4) Wait up to 48 hours for activation confirmation to be received.

5) Re-access, if necessary by repeating Step 1), the Pilkington Spectrum website <http://spectrum.pilkington.com/> and enter your email and confirm:



Language Override English (English) ▼

[Are you having a problem?](#)

If you have already registered to use Pilkington Spectrum please enter your email address and click OK.

Email Address

To register to use Pilkington Spectrum please enter your details below and click OK. You will then be sent an email that contains a link you need to click on to validate your email address. Once you have done this you can start using Pilkington Spectrum.

First Name *

Last Name *

Job Title

Email Address *

Please re-enter your email address *

Country United Kingdom (UK) ▼

Company Address

Company Name *

Business Type Architect ▼

Building No/Name


N.B. It is now possible to access all Pilkington Spectrum functions.

Glazing configuration, printing of the datasheet

Below is a 10-steps guide to configuring the desired IGU using our Pilkington Spectrum configurator and printing the relevant data sheet.


N.B. To get a composition that meets certain design requirements, you shall use the Spec-It! function – see next chapter.

Please note that this configurator is also accessible on smartphones, by free downloading the **App** for iPhone and Android.





Download the **Pilkington Spectrum** mobile app

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1) There are several glazing configurations to choose from, the default program interface is to configure a single cavity glazing unit. If necessary, set the language to *English*.

Save Open Disclaimer Information Add Comment Spec-It!

Print English (English)

Language Override: English (English)



Glass 1

Glass 2

Cavity 1

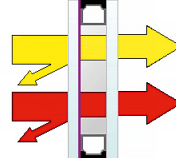
Gas 1

Light

16%

Energy

32%




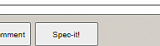
70%

37%

Product Code	U _g -value	UV %	Light %				Energy %				Solar Factor		Shading Coeff.	
6.4L(70)-16Ar-6.8L	W/m ² K	T _{uv}	LT	LR out	LR in	ET	ER	EA	g	T SC	S SC	0.37	0.43	0.39
	1.0	0	70	16	17	34	32	34						
Performance Code		Sound Reduction		Ra	Thickness	Weight	Selectivity		Date					
U _g -value/Light/Energy		R _w (C _w) dB		97	mm	kg/m ²	1.91		30/01/2024					
1.0 / 70 / 37		35 (-2; -6)			29.2	31.14								

Additional Values (Show Details...)


2) If you wish to configure a monolithic pane, move the cursor over the relevant image (left), and click when it gets framed by a black background. Similarly, you can choose a triple glazing or a fire-resistant glass.

Save Open Disclaimer Information Add Comment Spec-It!

Print English (English)

Language Override: English (English)



Glass 1

Glass 2

Cavity 1

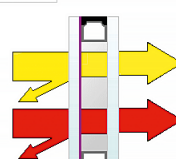
Gas 1

Light

16%

Energy

32%



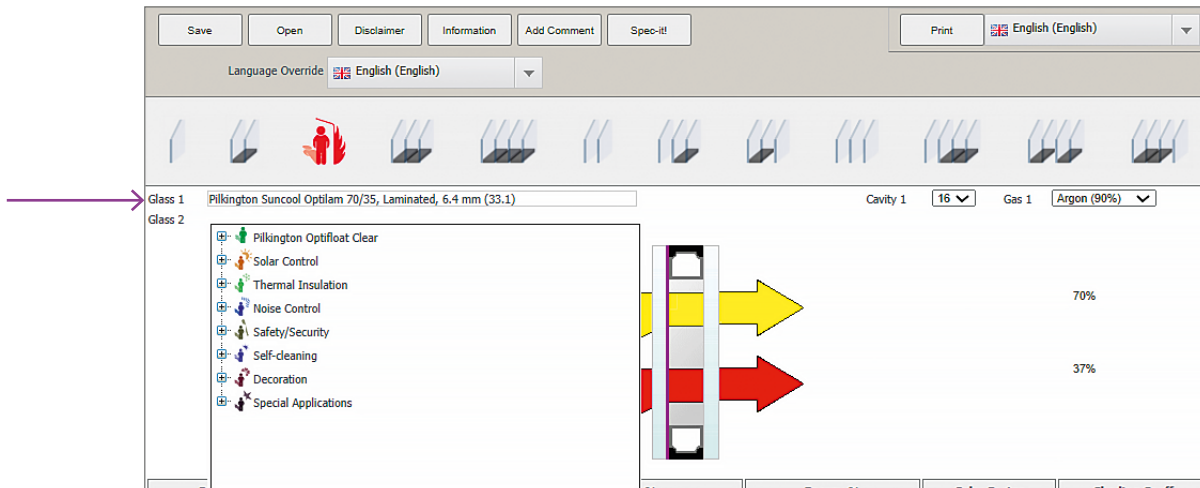
70%

37%

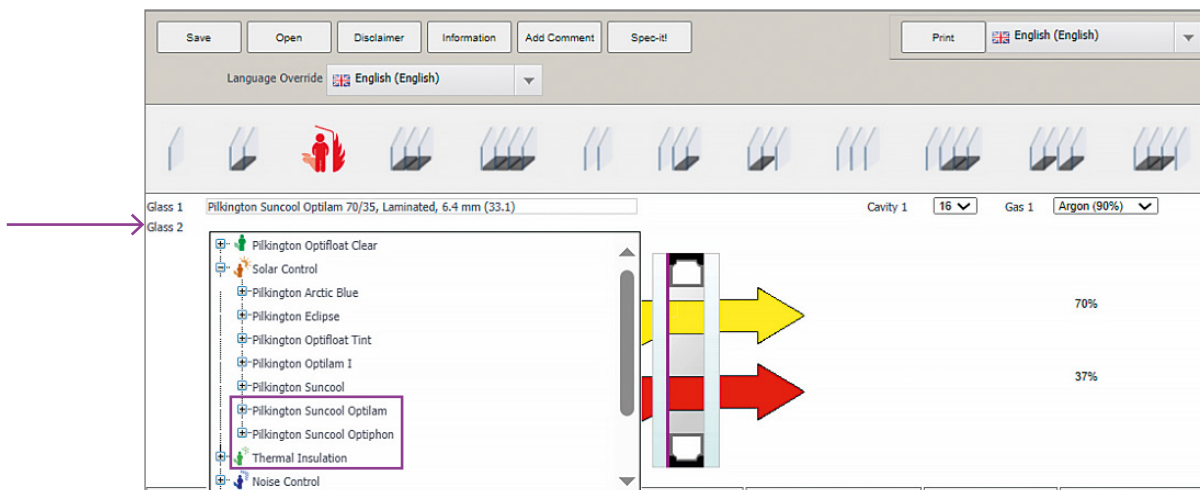
Product Code	U _g -value	UV %	Light %				Energy %				Solar Factor		Shading Coeff.	
6.4L(70)-16Ar-6.8L	W/m ² K	T _{uv}	LT	LR out	LR in	ET	ER	EA	g	T SC	S SC	0.37	0.43	0.39
	1.0	0	70	16	17	34	32	34						
Performance Code		Sound Reduction		Ra	Thickness	Weight	Selectivity		Date					
U _g -value/Light/Energy		R _w (C _w) dB		97	mm	kg/m ²	1.91		30/01/2024					
1.0 / 70 / 37		35 (-2; -6)			29.2	31.14								

Additional Values (Show Details...)

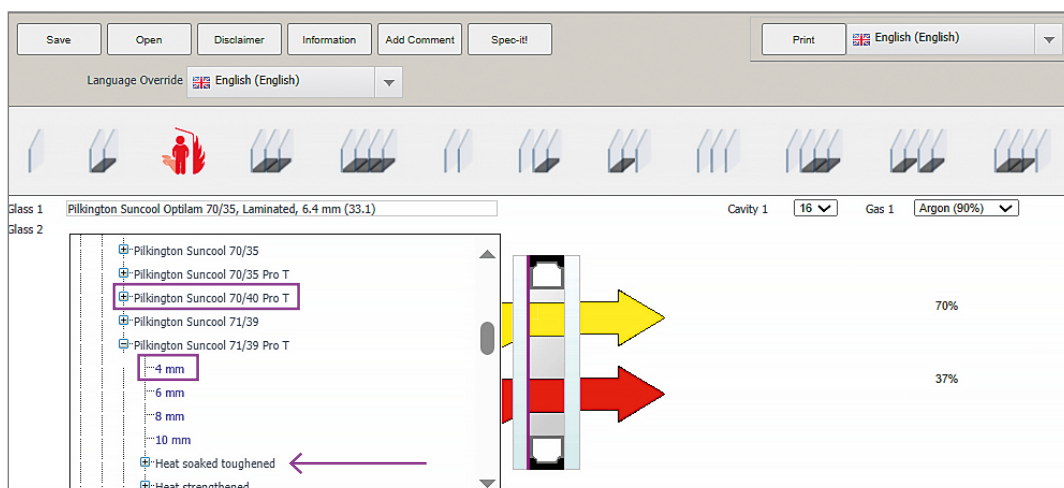
3) Once the desired glazing type has been selected, click on *Glass 1* (external glass in the case of double-glazing) to open the drop-down menu, where the product categories of the Pilkington range appear.



4) To select a standard low-e product, click on *Thermal Insulation*, then the Pilkington **Optitherm™** range; to choose an off-line coated solar control glass, choose *Solar Control*, then Pilkington **Suncool™**. The Pilkington **Optilam™** range indicates laminated products, and the Pilkington **Optiphon™** range is about acoustic laminated glass. Laminated products in the Pilkington **Optilam™** range are in the *Safety/Security* category, while acoustic laminates in the Pilkington **Optiphon™** range are in the *Noise Control* category.



5) After selecting the product type, choose the process (e.g. annealed for standard float glass, or toughened or toughened with HST) and the thickness.



6) Choose the interior glass: to fulfill the minimum safety criteria, you can choose a product in the *Safety/Security* product category, eg. the standard laminated glass Pilkington **Optilam**™ Clear.

Class 1 Pilkington Suncool 71/39, Annealed, 8 mm

Class 2 Pilkington Optilam Clear, Laminated, 6.8 mm (33.2)

Cavity 1 16 Gas 1 Argon (90%)

Light 70%

Energy 38%

Product Code	U _g -value	UV %	Light %			Energy %	
	W/m ² K	T _{uv}	LT	LR out	LR in	ET	ER
BC(71)T-16A-N06-4L	1.0	1	65	15	16	32	33

N.B. To get a single cavity glazing unit with $U_g=0.9$ W/m²K, you can set the low-e Pilkington **K Glass**™ with pyrolytic coating in face #4, either annealed or laminated, by clicking on the *Flip coating* button.

Class 1 Pilkington Suncool 71/39 Pro T, Toughened, 8 mm

Class 2 Pilkington Optilam K Glass N, Laminated, 6.4 mm

Light 15%

Energy 33%

Product Code	U _g -value	UV %	Light %			Energy %	
	W/m ² K	T _{uv}	LT	LR out	LR in	ET	ER
BC(71)T-16A-N06-4L	1.0	1	65	15	16	32	33

Class 1 Pilkington Suncool 71/39 Pro T, Toughened, 8 mm

Class 2 Pilkington Optilam K Glass N, Laminated, 6.4 mm

Light 14%

Energy 32%

Product Code	U _g -value	UV %	Light %			Energy %	
	W/m ² K	T _{uv}	LT	LR out	LR in	ET	ER
BC(71)T-16A-N06-4L	0.9	1	65	14	17	32	32

7) Once you have selected and chosen the outer glass and the inner glass, you can choose the cavity thickness and the filling gas.

Class 1 Pilkington Suncool 71/39, Annealed, 8 mm

Class 2 Pilkington Optilam Clear, Laminated, 8.8 mm

Cavity 1 16 Gas 1 Argon (90%)

Light 70%

Energy 38%

Product Code	U _g -value	UV %	Light %			Energy %	
	W/m ² K	T _{uv}	LT	LR out	LR in	ET	ER
BC(71)T-16A-N06-4L	1.0	1	65	15	16	32	33

8) Then, it is possible to compare whether the technical performances fulfill the requirements.

Glass 1 Pilkington Suncool 71/39, Annealed, 8 mm
 Glass 2 Pilkington Optilam Clear, Laminated, 8.8 mm
 Cavity 1 16 Gas 1 Argon (90%)

Light 70%
 Energy 38%

Product Code	U _g -value	UV %	Light %			Energy %			Solar Factor	Shading Coeff.	
8C(71)-16Ar-8.8L	W/m ² K	T _{uv}	LT	LR out	LR in	ET	ER	EA	g	T SC	S SC
	1.0	0	70	12	14	34	32	34	0.38	0.44	0.39
Performance Code	Sound Reduction		R _a	Thickness	Weight	Selectivity		Date			
U _g -value/Light/Energy	R _w (C ₁ ;C ₂) dB		94	mm	kg/m ²	1.84		31/01/2024			
1.0 / 70 / 38	37 (-3; -7)			32.8	40.76						

Additional Values (Show Details...)

9) To view additional values, such as Resistance to bullet or fire, click on Show Details.

Glass 1 Pilkington Suncool 71/39, Annealed, 8 mm
 Glass 2 Pilkington Optilam Clear, Laminated, 8.8 mm
 Cavity 1 16 Gas 1 Argon (90%)

Light 70%
 Energy 38%

Product Code	U _g -value	UV %	Light %			Energy %			Solar Factor	Shading Coeff.	
8C(71)-16Ar-8.8L	W/m ² K	T _{uv}	LT	LR out	LR in	ET	ER	EA	g	T SC	S SC
	1.0	0	70	12	14	34	32	34	0.38	0.44	0.39
Performance Code	Sound Reduction		R _a	Thickness	Weight	Selectivity		Date			
U _g -value/Light/Energy	R _w (C ₁ ;C ₂) dB		94	mm	kg/m ²	1.84		31/01/2024			
1.0 / 70 / 38	37 (-3; -7)			32.8	40.76						

Additional Values (Hide Details...)

Bullet Resistance	Burglar Resistance	Explosion Resistance	External Fire Performance	Load Resistance (MPa)
NPD	NPD+P2A	NPD	NPD	45+45/45
Pendulum Body Impact Resistance	Reaction to Fire	Resistance to Fire	Resistance to Temperature Differentials (K)	
NPD+1(B)1	NPD	NPD	40+40	

10) Print the datasheet on PDF by clicking Print. Set the datasheet language by clicking on the right flag.

The screenshot shows the top navigation bar with buttons for Save, Open, Disclaimer, Information, Add Comment, and Spec-It!. The Print button is circled in purple. To its right is a language selection dropdown menu currently set to 'English (English)'. Below this is a 'Language Override' dropdown also set to 'English (English)'. The main interface displays glass specifications for Glass 1 (Pilkington Suncool 71/39, Annealed, 8 mm) and Glass 2 (Pilkington Optilam Clear, Laminated, 8.8 mm). It includes a diagram of a glass unit with light and energy flow arrows, and a detailed performance table.

Product Code	U _g -value	UV %	Light %			Energy %			Solar Factor	Shading Coeff.	
8C(71)-16Ar-8.8L	W/m ² K	T _{uv}	LT	LR out	LR in	ET	ER	EA	g	T SC	S SC
	1.0	0	70	12	14	34	32	34	0.38	0.44	0.39
Performance Code	Sound Reduction		Ra	Thickness	Weight	Selectivity		Date			
U _g -value/Light/Energy	R _w (C ₁ ;C ₂) dB		94	mm	kg/m ²	1.84		31/01/2024			
1.0 / 70 / 38	37 (-3; -7)			32.8	40.76						

Spec-it! function

The following is a 5-steps guide to get the composition that meets the performance requirements specified in the tender or required by the customer, using the Spec-it! function within the Pilkington Spectrum configurator.

Please note that this configurator is also accessible on smartphones, by free downloading the **App** for iPhone and Android.

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1) Log in to Spectrum and click the Spec-it! button:

The screenshot shows the same interface as above, but with the 'Spec-It!' button circled in purple. The rest of the interface, including the glass specifications, diagram, and performance table, remains identical.

2) In the left column, start setting the desired performance values by moving their sliders; in addition to U_g value and g Value, you can act on the maximum glazing thickness and the number of panes:

The screenshot shows the Pilkington Spec-it! interface. On the left, there are sliders for Energy (U_g -value, g Value), Light (transmittance, external and internal reflectance), and Sound Insulation (R_w). The main area displays a table of glass products with the following columns: Description, Overall Thickness (mm), U_g -value (W/m^2K), LT (%), LR out (%), LR in (%), g Value, R_w (dB), R_w+C (dB), and R_w+C_g (dB).

Description	Overall Thickness (mm)	U_g -value (W/m^2K)	LT (%)	LR out (%)	LR in (%)	g Value	R_w (dB)	R_w+C (dB)	R_w+C_g (dB)
Pilkington Activ Suncool™ 40/22, Annealed, 10mm Argon (90%), 14mm Pilkington Optiwhite™ , Toughened, 5mm Argon (90%), 14mm Pilkington Optiphon™ Therm S3 S, Laminated, 8.8mm	51.8	0.6	33	25	25	0.18	NPD	NPD	NPD
Pilkington Activ Suncool™ 45/27 Pro T, Heat soaked toughened, 6mm Krypton (90%), 15mm Pilkington Optitherm™ S3 OW, Annealed, 6mm	27	1.1	46	22	22	0.28	NPD	NPD	NPD
Pilkington Optilam™ Therm S3, Laminated, 8.8mm Argon (90%), 14mm Pilkington Optiwhite™ , Heat strengthened, 4mm Argon (90%), 14mm Pilkington Optitherm™ S3, Annealed, 4mm	44.8	0.6	74	14	14	0.50	37	35	31
Pilkington Activ Suncool Optilam™ 70/35, Laminated, 8.8mm									

N.B. To get more results, you shall not select any noise control value, since only certified performance are covered, not estimated values.

3) Uncheck the undesired product types and process types, then click on search:

The screenshot shows the same interface as above, but with filters applied. Under 'Product Categories', 'Health Applications' is unchecked. Under 'Processes', 'Annealed', 'Toughened', 'Heat strengthened', and 'Heat soaked toughened' are checked. The 'Search' button is circled in red, and a purple arrow points to it from below.

Description	Overall Thickness (mm)	U_g -value (W/m^2K)	LT (%)	LR out (%)	LR in (%)	g Value	R_w (dB)	R_w+C (dB)	R_w+C_g (dB)
Pilkington Pyrostop® 60-101 OW, 23mm									
Pilkington Suncool Optiphon™ 60/31, Laminated, 12.8mm Argon (90%), 14mm Pilkington Optiwhite™ , Annealed, 6mm Argon (90%), 12mm Pilkington Optitherm™ S3 Pro T, Heat soaked toughened, 10mm	54.8	0.6	52	14	19	0.28	NPD	NPD	NPD
Pilkington Activ SunShade™ Neutral, Toughened, 6mm Argon (90%), 20mm Pilkington K Glass™ N, Heat soaked toughened, 6mm Argon (90%), 20mm Pilkington K Glass™ OW, Heat soaked toughened, 6mm	58	0.9	36	32	30	0.33	NPD	NPD	NPD
Pilkington Suncool™ 50/25, Annealed, 6mm Air, 12mm Pilkington Optiwhite™ , Heat strengthened, 6mm	24	1.5	51	19	20	0.28	31	30	27

4) The Spec-it! function returns various solutions, both in monolithic and double-glazing, that meet the user's performance requirements, shown on the right-hand side of the screen. You can either refine them or select one of the proposed solutions.

The Spec-it! interface includes search filters for Energy (U_g -value, g Value), Light (transmittance, external/internal reflectance), and Sound Insulation (R_w). The results table is as follows:

Description	Overall Thickness (mm)	U_g -value (W/m ² K)	LT (%)	LR out (%)	LR in (%)	g Value	R_w (dB)	$R_{w}+C$ (dB)	$R_{w}+C_{tr}$ (dB)
Pilkington Pyrostop® 60-101 OW, 23mm									
Pilkington Suncool Optiphon™ 60/31, Laminated, 12.8mm									
Argon (90%), 14mm									
Pilkington Optiwhite™, Annealed, 6mm	54.8	0.6	52	14	19	0.28	NPD	NPD	NPD
Argon (90%), 12mm									
Pilkington Optitherm™ S3 Pro T, Heat soaked toughened, 10mm									
Pilkington Activ SunShade™ Neutral, Toughened, 6mm									
Argon (90%), 20mm									
Pilkington K Glass™ N, Heat soaked toughened, 6mm	58	0.9	36	32	30	0.33	NPD	NPD	NPD
Argon (90%), 20mm									
Pilkington K Glass™ OW, Heat soaked toughened, 6mm									
Pilkington Suncool™ 50/25, Annealed, 6mm									
Air, 12mm	24	1.5	51	19	20	0.28	31	30	27
Pilkington Optiwhite™, Heat strengthened, 6mm									

5) After clicking on the chosen solution, the program opens its configuration, where you can change either the type of glass products or the characteristics of the cavity. Click *Print* to get the datasheet of this solution.

The Spectrum interface shows configuration for Glass 1 (Pilkington Suncool Optiphon 70/35 OW, Laminated, 8.8 mm) and Glass 2 (Pilkington Optilam Clear, Laminated, 6.8 mm (33.2)). Cavity 1 is set to 16 mm and Gas 1 to Argon (90%). A diagram shows light and energy transmission through the glass. The performance data table is as follows:

Product Code	U_g -value	UV %	Light %			Energy %			Solar Factor		Shading Coeff.	
8.8Lpvc(70)-16Ar-6.8L	W/m ² K	T_{uv}	LT	LR out	LR in	ET	ER	EA	g	T SC	S SC	
	1.0	0	71	16	17	35	36	29	0.37	0.43	0.4	
Performance Code	Sound Reduction		Ra	Thickness	Weight	Selectivity		Date				
U_g -value/Light/Energy	$R_{w} (C_{c,2})$ dB			mm	kg/m ²							
1.0 / 71 / 37	40 (-2; -7)		98	31.6	36.52	1.9		31/01/2024				



Technical support contact

For any clarification, request for information or help in preparing a datasheet, you can write an e-mail to: assistenza@nsg.com

This publication provides only a general description of the products. Further, more detailed, information may be obtained from your local supplier of Pilkington products. It is the responsibility of the user to ensure that the use of these products is appropriate for any particular application and that such use complies with all relevant legislation, standards, codes of practice and other requirements. To the fullest extent permitted by applicable laws, Nippon Sheet Glass Co. Ltd. and its subsidiary companies disclaim all liability for any error in or omission from this publication and for all consequences of relying on it. Pilkington, "Optitherm", "Suncool", "Optilam", "Optiphon" and "K Glass" are trademarks owned by Nippon Sheet Glass Co. Ltd, or a subsidiary thereof.



CE Marking confirms that a product meets the requirements of its relevant harmonised European Norm and can be placed on the market in the EU. The CE Marking Declaration of Performance for each product can be found at www.pilkington.com/ce



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