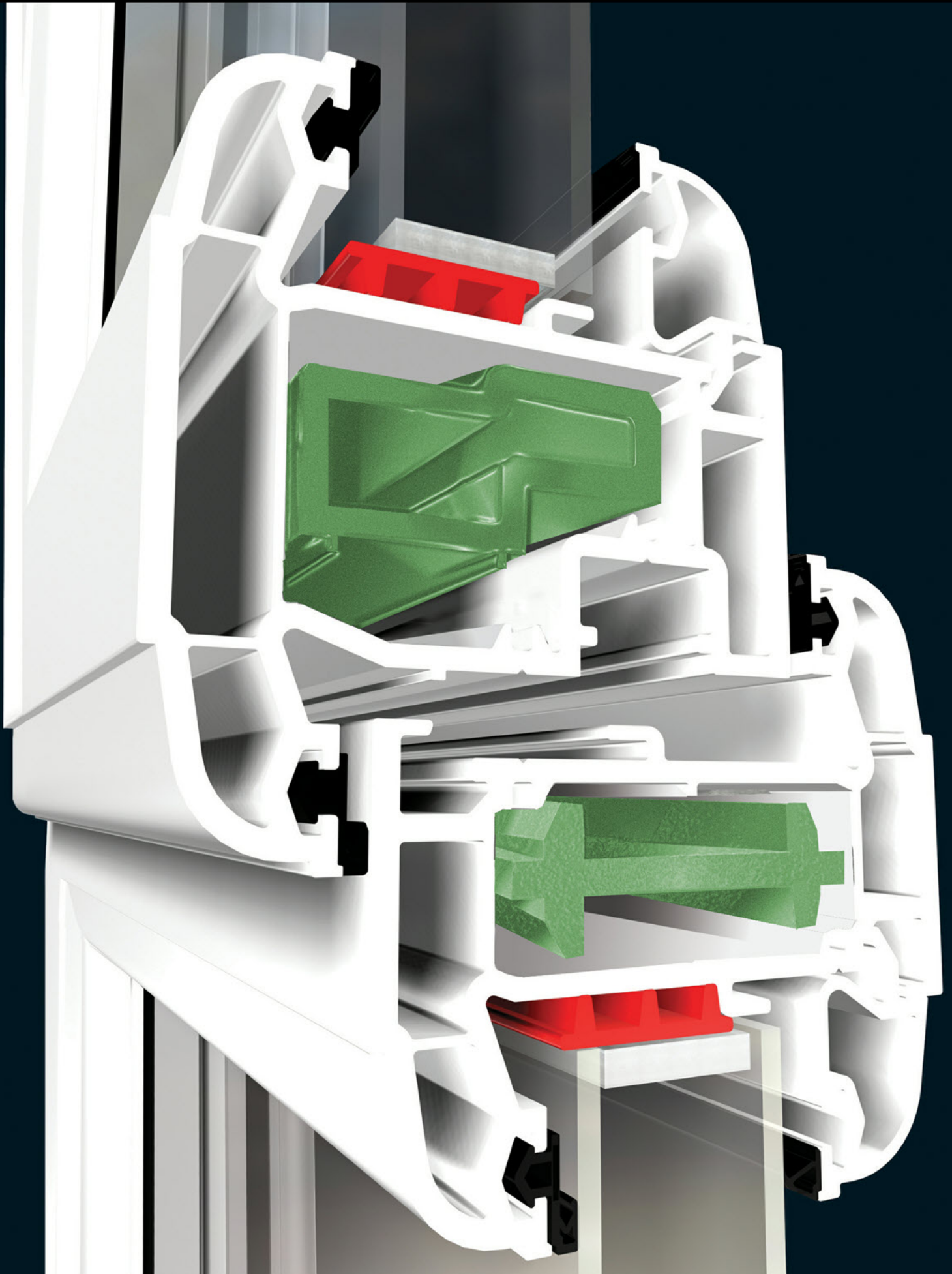


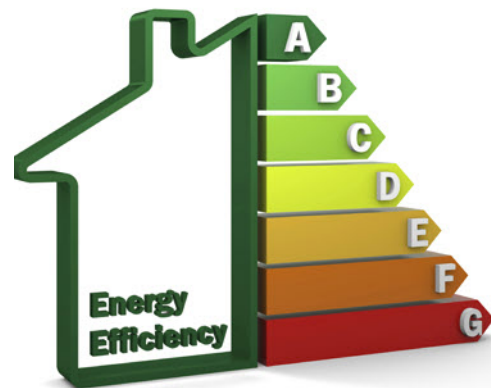
# Making Energy Ratings Work For Your Business

 **synseal**<sup>®</sup>  
means business



# Thermal Inserts and Thermally Chambered Frames

For Legend 70, SynerJy, Shield and Evolve window suites



## New range brings you more sales opportunities

Synseal's new range of thermal inserts and thermally chambered frames are engineered to produce the most cost effective energy efficient windows for:-

- A+ rating on the BFRC Energy Index
- 1.6 W/m<sup>2</sup>K U-value or C rated to achieve new Build Regulations
- 1.3 W/m<sup>2</sup>K U-value or lower for new build and social housing

### Thermal performance without compromise

The thermal inserts are made from 100% recycled material and work by creating additional cavities in the frame to reduce heat loss as well as providing the performance of a minimum reinforcement window, exceeding the BS6375-1:2009 requirements for wind resistance (1600Pa exposure category).

Using thermal inserts or thermally chambered frames means you don't have to reduce your manufacturing efficiency or compromise the integrity of your windows in order to achieve high energy ratings or low U-values, giving you the edge over your competitors.

A rated windows with an intermediate outer frame can easily be achieved with Legend 70, SynerJy, Shield and Evolve windows using Synseal thermal inserts, giving you and your customers a choice of window configurations.

### New Thermally Chambered Intermediate Outer frames

To compliment the thermal inserts we have also launched a range of thermally chambered intermediate outer frames for Legend 70, Shield and SynerJy suites and a thermally chambered sash for the new Evolve 60 mm suite.

### Energy rated windows for less cost

The ability to manufacture high energy performing windows without adding cost was a crucial factor in the design of inserts and thermally chambered frames. The range will: -

- A** Achieve A rated windows using just a float glass outer pane instead of low iron.
- A** Achieve A rated reinforced woodgrain windows.
- C** Meet the new Building Regulation requirements using a glass unit with an aluminium spacer bar reducing costs for you or your customer.
- 1.3w/m<sup>2</sup>K** Achieve the low U-values required by house builders and social housing landlords without expensive glass unit configurations or triple glazing.

The webs in each profile are designed to provide the most thermally efficient chambers, greatly reducing heat transfer from inside the room to the outside. The multiple chambers also make the outer frame more rigid.



# WER's and U-Values

Thermal Inserts



Suite	Inserts or Steel Reinforcement			Glass Unit				Results	
	Intermediate Outer Frame	Sash	Transom	Inner Pane	Gas	Spacer	Outer Pane	WER	U-Value W/m <sup>2</sup> K
Legend 70				Total+	Argon	Super	Diamant	+5A	1.4
				Total+	Argon	Super	Float	+0A	1.4
				Total+	Argon	SwissV	Diamant	+4A	1.4
				Total+	Argon	SwissV	Float	-1B	1.4
				Total+	Argon	Super	Diamant	+1A	1.4
				Total+	Argon	SwissV	Diamant	+0A	1.4
Shield 6				Total+	Argon	Super	Diamant	+7A	1.4
				Total+	Argon	Super	Float	+2A	1.4
				Total+	Argon	SwissV	Diamant	+6A	1.4
				Total+	Argon	SwissV	Float	+2A	1.4
				Total+	Argon	Super	Diamant	+4A	1.4
				Total+	Argon	SwissV	Diamant	+3A	1.4
Synerjy				Total+	Argon	Super	Diamant	+5A	1.4
				Total+	Argon	Super	Float	+1A	1.4
				Total+	Argon	SwissV	Diamant	+5A	1.4
				Total+	Argon	SwissV	Float	+0A	1.4
				Total+	Argon	Super	Diamant	+2A	1.4
				Total+	Argon	SwissV	Diamant	+1A	1.4

C Rated "Low Cost" specs

Suite	Inserts or Steel Reinforcement			Glass Unit				Results	
	Intermediate Outer Frame	Sash	Transom	Inner Pane	Gas	Spacer	Outer Pane	WER	U-Value W/m <sup>2</sup> K
Legend 70				K	Air	Super	Float	-20C	1.7
				Total+	Air	Super	Float	-14C	1.6
				K	Air	Super	Optiwhite	-16C	1.8
				K	Argon	Super	Float	-15C	1.6
Shield 6				K	Air	Super	Float	-20C	1.7
				Total+	Air	Super	Float	-13C	1.6
				K	Air	Super	Optiwhite	-14C	1.6
				K	Argon	Super	Float	-14C	1.6
Synerjy				K	Air	Super	Float	-20C	1.7
				Total+	Air	Super	Float	-13C	1.6
				K	Air	Super	Optiwhite	-14C	1.7
				K	Argon	Super	Float	-13C	1.6

Thermally Chambered Outer Frames

Suite	Inserts or Steel Reinforcement			Glass Unit				Results	
	Intermediate Outer Frame	Sash	Transom	Inner Pane	Gas	Spacer	Outer Pane	WER	U-Value W/m <sup>2</sup> K
Legend 70	x			Total+	Argon	Super	Diamant	+6A	1.4
	x			Total+	Argon	Super	Float	+2A	1.4
	x			Total+	Argon	SwissV	Diamant	+5A	1.4
	x			Total+	Argon	SwissV	Float	+0A	1.4
				Total+	Argon	Super	Diamant	+1A	1.4
				Total+	Argon	SwissV	Diamant	+0A	1.4
				Total+	Argon	SwissV	Diamant	+0A	1.4
Shield 6	x			Total+	Argon	Super	Diamant	+8A	1.4
	x			Total+	Argon	Super	Float	+4A	1.4
	x			Total+	Argon	SwissV	Diamant	+7A	1.4
	x			Total+	Argon	SwissV	Float	+2A	1.4
				Total+	Argon	Super	Diamant	+4A	1.4
				Total+	Argon	Super	Float	+0A	1.4
				Total+	Argon	SwissV	Diamant	+3A	1.4
Synerjy	x			Total+	Argon	Super	Diamant	+6A	1.4
	x			Total+	Argon	Super	Float	+2A	1.4
	x			Total+	Argon	SwissV	Diamant	+5A	1.4
	x			Total+	Argon	SwissV	Float	+1A	1.4
				Total+	Argon	Super	Diamant	+2A	1.4
				Total+	Argon	SwissV	Diamant	+1A	1.4

C Rated "Low Cost" specs

Suite	Inserts or Steel Reinforcement			Glass Unit				Results	
	Intermediate Outer Frame	Sash	Transom	Inner Pane	Gas	Spacer	Outer Pane	WER	U-Value W/m <sup>2</sup> K
Legend 70	x			K	Air	Super	Float	-20C	1.7
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				K	Argon	Super	Float	-15C	1.6
Shield 6	x			K	Air	Super	Float	-20C	1.7
				Total+	Air	Super	Float	-14C	1.6
				K	Air	Super	Optiwhite	-15C	1.7
				K	Argon	Super	Float	-14C	1.6
Synerjy	x			K	Air	Super	Float	-19C	1.7
				Total+	Air	Super	Float	-13C	1.6
				K	Air	Super	Optiwhite	-14C	1.7
				K	Argon	Super	Float	-14C	1.6

If you require other simulations please visit [www.synseal.com](http://www.synseal.com)



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