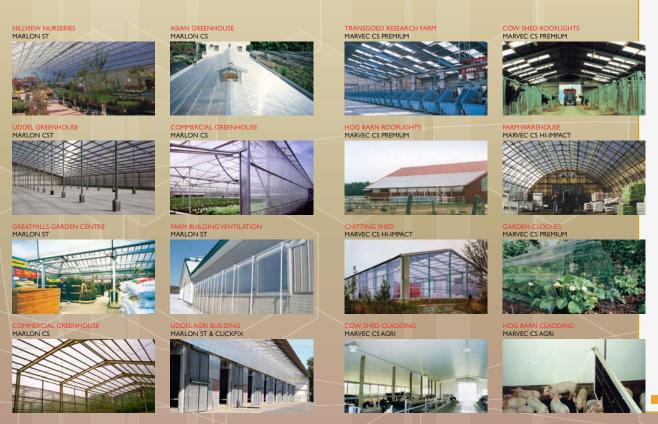
## Green Houses Material, applications, accessories, warranty and much more....



## Present by **Amit Israeli**





## Subjects:

- Available products
- Sheets Performances
- Warranties
- Energy Saving
- Accessories
- R&D
- Q&A











## **Available Products:**

- o PC Multiwall 6 & 8 mm 2 walls
- PC Multiwall 6 & 8 mm 3 walls
- PC Corrugated greca 76/18
- FRP Corrugated greca 76/18
- PMMA Corrugated greca 76/18
- o PC Multiwall 6, 8 & 10 mm 4 walls
- o PC Multiwall 8,10 & 16mm 5 walls
- PE Multiwall 3.5 & 5mm
- PMMA 8mm & 16mm
- PC Greca, 8,10 & 16mm with ZeroLT (zero Light Transmission)

All with the customary anti-drop treatment, 10 or 15 years warranty







## **Products Comparison**

	LT	Insulation	Defuse	warranty	Impact / Strength	cost
PE	Very High	Very Low	Very Low	Very Low	Very Low	\$
Doable PE	High	good	Low	Very Low	Very Low	\$\$
Greca PC	Very High	low	Very Low	Very Good	Good	\$\$
Doable wall PC	High	High	Very Good	Very Good	Very Good	\$\$\$
Multi-wall PC	Very Good	Very High	High	Very Good	Very High	\$\$\$
Solexx	Low	High	Very High	Good	Good	\$\$\$
Glass	Very High	Low	Very Low	Very High	Very Low	\$\$









Thickness	U-Value
4mm	3.9
6mm	3.7
8mm	3.4
I0mm	3.2
30mm	2.6

Fourwall (Four) - thicknesses 8mm & 10mm



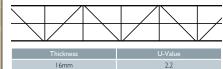
Thickness	U-Value
8mm	2.8
I0mm	2.5

Triplewall (Triple) - thickness 16mm



Thickness	U-Value
16mm	2.4

M Wall (M) - thickness 16mm

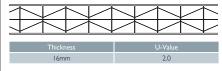


16x32mm M Wall (M) - improved clarity



Thickness	U-Value
16mm	2.5

X Wall (X) - thickness 16mm

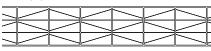


Fivewall (Five) - thicknesses 16 & 25mm



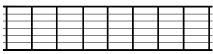
Thickness	U-Value
16mm	1.9
25mm	1.6

7X Wall (7X) - thicknesses 20mm & 25mm



Thickness	U-Value
20mm	1.6
25mm	1.4

Sevenwall (Seven) - thicknesses 32 & 35mm



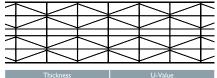
Thickness	U-Value
32mm	1.25
35mm	1,2

XX wall (XX) - thicknesses 32 & 35mm



Thickness	U-Value
32mm	1.4
35mm	1.4

Tenwall - thicknesses 32, 35, 40 & 55mm



Thickness	U-Value
32mm	1.14
35mm	1.08
40mm	0.99
55mm	0.83







## **Sheets Performances**

Thickness	Number of walls	Weight Lb/sqf	Light transmission %	U value	
10 mm	2	0.35	77	0.53	
10 mm	3	0.35	73	0.48	
10 mm	4	0.36	70	0.44	
10 mm	5	0.36	67	0.42	

		Š
<u> </u>	<del></del>	

Thickness	Thickness mm	Light transmission %	U value		
Standard solid corrugated greca 76/18	0.8	89	1.23		
MW corrugated greca 76/18	2.5	83	0.83		





### **Sheets Performances**

iP-Plastic-GM™ 76/18 CLEAR 3mm(1/8") (GM = Greca Millerighe; Millerighe = 1000 lines) Impact-modified corrugated acrylic sheets

#### Boxed shaped / trapezoidal corrugated sheets

Length: up to 23'; Width: 1045 mm / 41.14"

Thickness 3 mm - 1/8"

Color: clear; Surface: flat top and lines on bottom.

#### Advantages:

LT – 94%

Haze – 96%

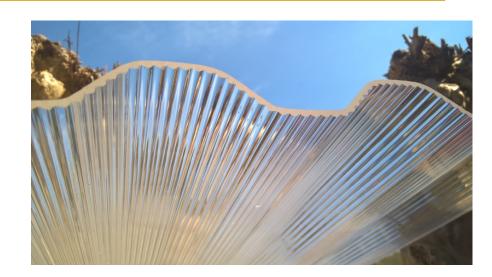
Allow UV light into the building = allow bees & insects to "see" the flowers

30 years warranty\* against loss of LIGHT TRANSMISSION and against YELLOWING of the sheets

life time performance of the Anti-Fog effect: The lines at the bottom of the sheet perform as a PERMANENT Anti fog.

You will not need to make any treatment any longer on the sheet.

SAVE TIME AND MONEY, NO MORE CONDENSATION ON YOUR GREENHOUSE EVER AGAIN



<sup>\*</sup> Please contact us for full & official warranty



## CALCULATION OF ENERGY SAVING FOR REPLACEMENT OF TRANSPARENT WINDOWS



#### Mongolia - Netafim

NOTE: please fill in only fields highlighted in red

#### 1. SURFACE

Transparent area subject to replacement, including any profiles or frames useful for installation.

S = 100000 ft<sup>2</sup>

#### 2. THERMAL TRANSMITTANCE

Thermal transmittance values related to the glass surface installed (U1) and the new one (U2)

Thomas danomittanos valass rolates to the glass o	and the new one (e.
iP-Plastic, 2-Walls, 8 mm	← choose the type of existing glazing
U1 = 0.564 Btu/ft² h °F ← thermal tr	ransmittance of the existing glazing
iP-Plastic, 4-Walls, 10 mm	$\leftarrow$ choose the type of the new glazing sheet
U2 = 0.440 Btu/ft2 h °F ← thermal tr	ransmittance of the new glazing
$\Delta U = 0.123$ Btu/ft2 h °F	

#### 3. TEMPERATURE

Tin = 65 °F

Values of mean temperature relative to the internal environment (Tin) and the external environment (Tout)

-		•											
	January	February	March	April	May	June	July	August	September	October	November	December	
Tout =	-13	-22	10	28	43	55	63	59	45	32	8.6	-7.6	°F
ΔТ = Г	78	87	55	37	22	10	2	6	20	33	56.4	72.6	٦°F

- Information about mean temperatures can be found at www.intellicast.com Section Historic Averages of your own city
- It is assumed that in summer the air conditioning system has the same costs of management of the heating in winter

#### 4. FUEL

Type of fuel used for the heating system

Fuel = Natural gas	$\leftarrow \textit{choose the type of fuel used for the heating system}$
Pt = 978 Btu/ft3	
Price = 0.025 \$/ft3	

#### 5. SAVING

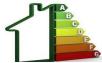
Savings in fuel and money due to the replacement of the glass surface with another one with a better thermal insulation

	January	February	March	April	May	June	July	August	September	October	November	December	
Rq =	696661	701847	491235	239855	147371	43217	8932	26795	129652	221056	487490	648431	ft3/m
Re =	17417	17546	12281	5996	3684	1080	223	670	3241	5526	12187	16211	\$/mo



Amount of fuel saved
Rq = 3842540 ft3

Money saved
Re = 96064 \$

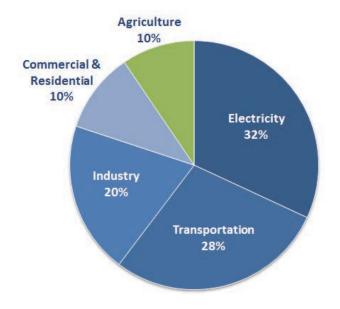




## ip Plastic

### **Energy Calculation**

# Pay More to Pay Less



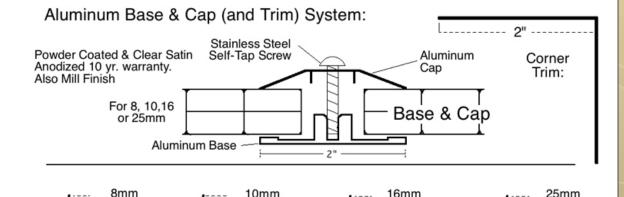


## i P

## ip Plastic

### **Accessories**

- Aluminum Profiles: Base & Cap; H
- Aluminum Profile: U
- PC Profiles: Base & Cap; H
- Profiles: Base & Cap; H
- Tape (Solid & Vented)
- Screws & Washers



U-Profile: White-Bronze 8, 10, 16, 25mm - Anodized 8, 16, 25mm - Mill Finish 8 & 16mm













### R&D



For maximum light transmission

**MARLON ST** 

**BRONZE OPAL** 

Bronze external finish with

an opal internal surface







MARLON ST HEATGUARD OPAL

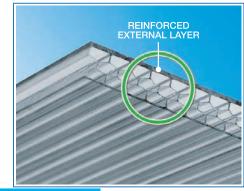
Silver grey external finish with an opal internal surface



Transparent sheet, reduces temperatures by up to 7%

- Colors (Heat reduction; defuse; )
- Anti-Fog
- Fire Rated
- Special Structure
- Any Others...

## REINFORCED



## 4 mm • 6 mm









HEAT SEALED SHEET ENDS

## i<sub>P</sub> Plast

## **Amit Israeli** – Career Highlights:



- Polygal Israel VP Operation
  - Responsible for all production related operations, including engineering, raw materials development, manufacturing, storage, shipping and more.
- Polygal USA President & CEO
   X2 Polygal USA sales and cut costs by over 37%.
- Gallina USA President & CEO
   Founded, established and led Gallina USA with Italian partners.
- AmeriLux (Sabic) General Manager Develop the U.S. architectural market.
- Co-Ex (Koscon) Consultant
  Consulting on the DIY market, architectural market and few special OEM customers.
  - Founder & CEO; 4Sons Consulting Services, Madison, WI
     4Sons is a consulting company for product innovation, development, and scaling needs.





## Contact

Amit Israeli – 4Sons, Inc. – Owner 608-359-1750 Promoting Plastic Solutions

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Israel: **03-374-3386** Efax: **262-565-4353**